CITY OF NEWTON

PURCHASING DEPARTMENT

CONTRACT FOR PUBLIC BUILDINGS

PROJECT MANUAL:

NEW SALT & EQUIPMENT STORAGE SHEDS AT THE CRAFTS STREET DPW MAINTENANCE YARD

110 CRAFTS STREET

NEWTON, MA

INVITATION FOR BID #14-22

Pre-Bid Meeting: September 5, 2013 at 12:00 p.m.

Bid Opening Date: September 13, 2013 at 12:00 p.m.

AUGUST 2013

Setti D. Warren, Mayor

CITY OF NEWTON
SPECIFICATION TABLE OF CONTENTS
NEW SALT & EQUIPMENT STORAGE SHEDS
AT THE CRAFTS STREET DPW MAINTENANCE YARD

Cover Page		1
Table of Contents		2
Part 1 - Bidding Documents, Contract Forms, and Conditions of the Contract		
1.	- Invitation for Bid	3
2.	- Instructions to Bidders	4-6
3.	- Bid Form	7-8
4.	- Bidder's Qualifications and References Form	9-10
5.	- Certificate of Non Collusion	11
	- Debarment Letter	12
	- IRS Form W-9	13
	▪ DCAM Certificate of Eligibility, Form CQ 7 (Supplied by Bidder)	
	▪ DCAM Update Statement, Form CQ-3, (Supplied by Bidder)	
6.	- Contract Forms	
	▪ City - Contractor Contract	15-17
	▪ Certificate of Authority - Corporate	18
	▪ Certification of Tax Compliance	19
	▪ Performance Bond	20
	▪ Payment Bond	21
7.	- General Conditions of the Contract	22-86
8.	- Wage Rate Requirements	87
	▪ Department of Labor Minimum Wage Rates	88-124
	▪ Notice to Awarding Authorities	125
	▪ Statement of Compliance	126
	▪ Weekly Payroll Report Form	127
9.	- Work Specifications	
	Section 01 10 00 – Scope of Work	128-129
	Section 01 23 00 – Alternates	130
	Section 01 31 00 – Construction Scheduling & Phasing	131
	Section 01 33 00 – Submittals	132-133
	Section 01 70 00 – Contract Closeout	134-135
	Section 13 34 00 – Fabric Membrane Covered Structures	136-148
10.	- Drawings (separate file)	3 pages

END OF SECTION

CITY OF NEWTON
PURCHASING DEPARTMENT
INVITATION FOR BID #14-22

The City of Newton invites sealed bids from Contractors for:

NEW SALT & EQUIPMENT STORAGE SHEDS
AT THE CRAFTS STREET DPW MAINTENANCE YARD

Pre-Bid Meeting: **12:00 p.m., Thursday, September 5, 2013, 110 Crafts Street, Newton, MA**
Bids will be received until: **12:00 p.m., Friday, September 13, 2013**
at the Purchasing Department, Room 204, Newton City Hall, 1000 Commonwealth Ave., Newton, MA 02459. Immediately following the deadline for bids all bids received within the time specified will be publicly opened and read aloud.

Contract Specifications will be available online at **www.newtonma.gov/bids.** or pick up at the Purchasing Department, after **10:00 a.m. on August 29, 2013.** There is no charge for documents.

All Bids must be accompanied by a copy of a "Certificate of Eligibility" (DCAMM Form CQ-7) issued by the Division of Capital Asset Management & Maintenance (DCAMM) and a "Contractor Update Statement" (DCAMM Form CQ-3).). **The category of work for which the Bidder must certified is: *Modular Construction/Prefabrication or General Building Construction**

The term of the awarded contract shall extend for 60 days **from the day of contract execution.**

All bids must be accompanied by a bid deposit in an amount that is not less than five percent (5%) of the value of the bid, including all add alternates. Bid deposits, payable to the City of Newton, shall be either in the form of a bid bond, or cash, or a certified check on, or a treasurer's or cashier's check issued by, a responsible bank or trust company. Bidders are reminded that the bid deposit covers the City for damages when a bidder withdraws its bid after the bid submisssion date. **Be advised that to the extent permitted by the law the City will retain all bid deposits for withdrawn bids.**

All bids are subject to the provisions of M.G.L. Chapter 149, Section 44 A-J. **Wages are subject** to minimum wage rates determined by the Massachusetts Department of Labor and Industries pursuant to M.G.L. Chapter 149, Sec. 26 to 27H. The schedule of wage rates applicable to this contract is included in the bidding documents. In addtion, the prevailing wage schedule will be updated annually for all public construction projects lasting longer than one (1) year. You will be required to pay the rates set out in any updated prevailing wage schedule. Increases in prevailing wage schedules will not be the basis for change order requests. The successful bidder will be required to provide a Certificate of Insurance demonstrating current coverage of the type and amounts set forth in the Project Manual**.** The successful bidder will be required to furnish a **Performance and Labor and Materials Payment Bonds each in the amount of 100%** of the contract total.

All bids shall be submitted as one ORIGINAL and one COPY.

All City of Newton bids are available on the City's web site, **www.newtonma.gov./bids** , Invitation for Bid. It is the sole responsibility of the contractor downloading these bids to ensure they have received any and all addenda prior to the bid opening. Addenda's will be available online within the original bid document as well as a separate file. If you download bids from the internet site and would like to make it known that your company has done so, you may fax the Purchasing Department (617) 796-1227 or email purchasing@newtonma.gov with your NAME, ADDRESS, PHONE, FAX AND INVITATION FOR BID NUMBER.

The City will reject any and all bids in accordance with the above referenced General Laws. In addition, the City reserves the right to waive minor informalities in any or all bids, or to reject any or all bids (in whole or in part) if it be in the public interest to do so.

CITY OF NEWTON
Nicholas Read,
Chief Procurement Officer
August 29, 2013

- ***Please note: DCAMM certification categories have changed from what was originally advertised.***

CITY OF NEWTON

DEPARTMENT OF PURCHASING

INSTRUCTIONS TO BIDDERS

ARTICLE 1 - BIDDER'S REPRESENTATION

1.1 Each General Bidder (hereinafter called the "Bidder") by making a bid (hereinafter called "bid") represents that:

1. The Bidder has read and understands these Bidding Documents, Contract Forms, Conditions of the Contract, General Requirements and Project Specifications (collectively, referred to as the "Contract Documents") and the bid is made in accordance therewith.

2. The Bidder has visited the work site and is familiar with the local conditions under which the work has to be performed.

1.2 Failure to so examine the Contract Documents and work site will not relieve any Bidder from any obligation under the bid as submitted.

ARTICLE 2 - REQUEST FOR INTERPRETATION

2.1 Bidders shall promptly notify the City of any ambiguity, inconsistency, or error which they may discover upon examination of the Contract Documents, the site, and local conditions.

2.2 Bidders requiring clarification or interpretation of the Contract Documents shall make a written request to the *Chief Procurement Officer*, at purchasing@newtonma.gov or via facsimile (617) 796-1227. The City will only answer such requests if received by **Friday, September 6, 2013 at 12:00 noon.**

2.3 Interpretation, correction, or change in the Contract Documents will be made by addendum which will become part of the Contract Documents. The City will not be held accountable for any oral communication.

2.4 Addenda will be emailed to every individual or firm on record as having taken a set of Contract Documents.

2.5 Copies of addenda will be made available for inspection at the location listed in the Invitation for Bids where Contract Documents are on file, in addition to being available online at **www.newtonma.gov/bids**.

2.6 Bidders or proposers contacting ANY CITY EMPLOYEE regarding an Invitation for Bid (IFB) or a Request for Proposal (RFP), outside of the Purchasing Department, once an IFB or RFP has been released, may be disqualified from the procurement process.

2.7 Bidders downloading information off the internet web site are solely responsible for obtaining any addenda prior to the bid opening. If the bidder makes itself known to the Purchasing Department, at purchasing@newtonma.gov or via facsimile (617) 796-1227, it shall be placed on the bidder's list. Bidders must provide the Purchasing Department with their company's name, street address, city, state, zip, phone, fax, email address and **INVITATION FOR BID #14-22**.

ARTICLE 3 - MBE PARTICIPATION

3.1 Notice is hereby given that the Mayor's Affirmative Action Plan for the City of Newton in effect at the time of this solicitation is applicable to all construction contracts in excess of $10,000.00.

3.2 Notice is hereby given that the City of Newton Minority/Women Business Enterprise Plan and the Supplemental Equal Employment Opportunity Anti-Discrimination and Affirmative Action Program in effect at the time of this solicitation are applicable to all City contracts for goods and services in excess of $50,000.00.

3.3 Copies of the Plans and Program referred to in Sections 3.1 and 3.2 are available at: **www.newtonma.gov/purchasing**.

ARTICLE 4 - PREPARATION AND SUBMISSION OF BIDS

4.1 Bids shall be submitted on the "Bid Form" as appropriate, furnished by the City.

4.2 All entries on the Bid Form shall be made by typewriter or in ink.

4.3 Where so indicated on the Bid Form, sums shall be expressed in both words and figures. Where there is a discrepancy between the bid sum expressed in words and the bid sum expressed in figures, the words shall control.

4.4 Bid Deposits shall be submitted in the amount specified in the Invitation for Bids. They shall be made payable to the City and shall be either in the form of cash, certified check, treasurer's or cashier's check issued by a responsible bank or trust company, or a bid bond issued by a surety licensed to do business in the Commonwealth of Massachusetts; and shall be conditioned upon the faithful performance by the principal of the agreements contained in the bid. Bidders are reminded that the bid deposit covers the City for damages when a bidder withdraws its bid after the bid submisssion date. **Be advised that to the extent permitted by the law the City will retain all bid deposits for withdrawn bids.**

Bid deposits of the three (3) lowest responsible and eligible Bidders shall be retained until the execution and delivery of the Owner/Contractor agreement.

4.5 The Bid, including the bid deposit shall be enclosed in a sealed envelope with the following plainly marked on the outside:

* GENERAL BID FOR: **#14-22**

* NAME OF PROJECT: **New Salt & Equipment Storage Sheds at the Crafts Street DPW Maintenance Yard**

* BIDDER'S NAME, BUSINESS ADDRESS, AND PHONE NUMBER

4.6 Date and time for receipt of bids is set forth in the Invitation for Bids.

4.7 Timely delivery of a bid at the location designated shall be the full responsibility of the Bidder. In the event that Newton City Hall is closed on the date or at the time that bids are due, the date and time for receipt of bids shall be on the next business day following that the Newton City Hall is open.

4.8 Bids shall be submitted with one **original** and one **copy.**

4.9 Be advised that a new Massachusetts law has been enacted that required all employees who work on Massachusetts public works construction sites must have no less than 10 hours of OSHA-approved safety and health training. See Chapter 306 of the Acts of 2004, which became effective July 1, 2006.

1. This requirement will apply to any general bid or sub bid submitted.
2. This law directs the Massachusetts Attorney General to restrain the award of construction contracts to any contractor who is in violation to this requirement and to restrain the performance of these contracts by non-complying contractors.
3. The contractor and all subcontractors on this project will be required to provide certification of compliance with this requirement. Non-compliance with this law will disqualify you from bidding on public contracts.

ARTICLE 5 - ALTERNATES

5.1 Each Bidder shall acknowledge alternates (if any) in Section C on the Bid Form.

5.2 In the event an alternate does not involve a change in the amount of the base bid, the Bidder shall so indicated by writing "No Change", or "N/C" or "0" in the space provided for that alternate.

5.3 Bidders shall enter on the Bid Form a single amount for each alternate which shall consist of the amount for work performed by the Contractor.

5.4 The low Bidder will be determined on the basis of the sum of the base bid and the accepted alternates.

ARTICLE 6 - WITHDRAWAL OF BIDS

6.1 Any bid may be withdrawn prior to the time designated for receipt of bids on written or electronic request. Electronic withdrawal of bids must be confirmed over the Bidder's signature by written notice on or before the date and time set for receipt of bids.

6.2 Withdrawn bids may be resubmitted up to the time designated for the receipt of bids.

6.3 No bids may be withdrawn within sixty (60) days, Saturdays, Sundays and legal holidays excluded, after the opening of the bids.

ARTICLE 7 - CONTRACT AWARD

7.1 The City will award one (1) contract to the lowest eligible and responsible Bidder within sixty (60) days, Saturdays, Sundays, and legal holidays excluded, after the opening of bids.

7.2 The City reserves the right to waive any informalities in or to reject any or all Bids if it be in the public interest to do so.

7.3 The City reserves the right to reject any bidder who has failed to pay any local taxes, fees, assessments, betterments, or any other municipal charge, unless the bidder has a pending abatement application or has entered into a payment agreement with the collector-treasurer.

7.4 As used herein, the term "lowest responsible and eligible Bidder" shall mean the Bidder (1) whose bid is the lowest of those bidders possessing the skill, ability and integrity necessary for the faithful performance of the work; (2) who has met all the requirements of the invitation for bids; (3) who shall certify that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; (4) who, where the provisions of section eight B of chapter twenty-nine apply, shall have been determined to be qualified thereunder.

7.5 Subsequent to the award and within five (5) days, Saturday, Sundays and legal holidays excluded, after the prescribed forms are presented for signature, the successful Bidder shall execute and deliver to the City a contract in the form included in the Contract Documents in such number of counterparts as the City may require.

7.6 In the event that the City receives low bids in identical amount from two or more responsive and responsible Bidders, the City shall select the successful Bidder by a blind selection process chosen by the City such as flipping a coin or drawing names from a hat. The low Bidders who are under consideration will be invited to attend and observe the selection process.

ARTICLE 8 - TAXES

8.1 The Bidder shall not include in this bid any tax imposed upon the sale or rental of tangible personal property in this Commonwealth, such as any and all building materials, supplies, services and equipment required to complete the work.

8.2 The City is exempt from payment of the Massachusetts Sales Tax, and the Bidder shall not include any sales tax on its bid. The City's exemption Number is E-046-001-404.

END OF SECTION

CITY OF NEWTON
DEPARTMENT OF PURCHASING
BID FORM #14-22

A. The undersigned proposes to furnish all labor, materials, tools, equipment, transportation and supervision required to perform all work in accordance with the Project Manual prepared by the City of Newton entitled:

NEW SALT & EQUIPMENT STORAGE SHEDS
AT THE CRAFTS STREET DPW MAINTENANCE YARD

B. This bid includes addenda number(s) _____, _____, _____, _____,

C. The proposed contract price is:

_____DOLLARS ($_____)

For Alternate No. 1 (Wood Clad Gable End Wall) Add $ _____;
Subtract $_____

COMPANY:_____

D.. Prompt Payment Discounts. Bidders are encouraged to offer discounts in exchange for an expedited payment. Payments may be issued earlier than the general goal of within 30 days of receipt of the invoice only when in exchange for discounted prices. Discounts will not be considered in determining the low responsible bidder.

Prompt Payment Discount _____%_____Days
Prompt Payment Discount_____%_____ Days
Prompt Payment Discount _____%_____Days

E. The undersigned has completed and submits herewith the following documents:

- DCAMM (CQ7 and CQ3)
- Signed Bid Form, 2 pages
- Bidder's Qualifications & Reference Form, 2 pages
- Certificate of Non-Collusion, 1 page
- Debarment Letter, 1 page
- IRS Form @-9, 1 page
- 5% Bid Bond

F. The undersigned agrees that, if s/he is selected as general contractor, s/he will within five days, Saturdays, Sundays and legal holidays excluded, after presentation thereof by the awarding authority, execute a contract in accordance with the terms of this bid and furnish a labor and materials or payment bond, each of a surety company qualified to do business under the laws of the commonwealth and satisfactory to the awarding authority and each in the sum of the contract price, the premiums for which are to be paid by the general contractor and are included in the contract price.

The undersigned hereby certifies that s/he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work and that s/he will comply fully with all laws and regulations applicable to awards made subject to section forty-four A of M.G.L. Chapter 30, s 39M.

The undersigned certifies that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; (2) that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration ("OSHA") that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and (3) that all employees to be employed in the work subject to this bid have successfully completed a course in construction safety and health approved by the United States OSHA that is at least 10 hours in duration. The undersigned understands that any employee found on a worksite 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.

The undersigned further certifies under the penalties of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this subsection the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity. The undersigned further certifies under penalty of perjury that the said undersigned is not presently debarred from doing public construction work in the Commonwealth under the provisions of section twenty-nine F of chapter twenty-nine, or any other applicable debarment provisions of any other chapter of the General Laws or any rule or regulation promulgated thereunder.

Date _____

_____
(Name of General Bidder)

BY: _____

_____
(Printed Name and Title of Signatory)

_____
(Business Address)

_____
(City, State Zip)

_____
(Telephone)

_____
(Email address)

NOTE: If the bidder is a corporation, indicate state of incorporation under signature, and affix corporate seal; if a partnership, give full names and residential addresses of all partners; if an individual, give residential address if different from business address; and, if operating as a d/b/a give full legal identity. Attach additional pages as necessary.

END OF SECTION

CITY OF NEWTON

BIDDER'S QUALIFICATIONS AND REFERENCES FORM

All questions must be answered, and the data given must be clear and comprehensive. Please type or print legibly. If necessary, add additional sheet for starred items. This information will be utilized by the City of Newton for purposes of determining bidder responsiveness and responsibility with regard to the requirements and specifications of the Contract.

1. FIRM NAME: _____

2. WHEN ORGANIZED: _____

3 INCORPORATED? _____ YES _____ NO DATE AND STATE OF INCORPORATION: _____

4. IS YOUR BUSINESS A **MBE**? _____YES _____NO **WBE**? _____YES _____NO or **MWBE**? _____YES _____NO

* 5. LIST ALL CONTRACTS CURRENTLY ON HAND, SHOWING CONTRACT AMOUNT AND ANTICIPATED DATE OFCOMPLETION:

_____
_____
_____
_____
_____

* 6. HAVE YOU EVER FAILED TO COMPLETE A CONTRACT AWARDED TO YOU?
_____ YES _____ NO
IF YES, WHERE AND WHY?

_____
_____

* 7. HAVE YOU EVER DEFAULTED ON A CONTRACT? _____ YES _____ NO
IF YES, PROVIDE DETAILS.

_____
_____

* 8. LIST YOUR VEHICLES/EQUIPMENT AVAILABLE FOR THIS CONTRACT:

_____
_____
_____
_____
_____
_____
_____

* 9. IN THE SPACES FOLLOWING, PROVIDE INFORMATION REGARDING CONTRACTS COMPLETED BY YOUR FIRM SIMILAR IN NATURE TO THE PROJECT BEING BID. A MINIMUM OF FOUR (4) CONTRACTS SHALL BE LISTED. PUBLICLY BID CONTRACTS ARE PREFERRED, BUT NOT MANDATORY.

PROJECT NAME: _____
OWNER: _____
CITY/STATE: _____

DOLLAR AMOUNT: $ _____ DATE COMPLETED: _____
PUBLICLY BID? _____YES _____ NO
TYPE OF WORK?: _____
CONTACT PERSON: _____ TELEPHONE #: ____)_____
CONTACT PERSON'S RELATION TO PROJECT?: _____
(i.e., contract manager, purchasing agent, etc.)

PROJECT NAME: _____
OWNER: _____
CITY/STATE: _____
DOLLAR AMOUNT: $ _____ DATE COMPLETED: _____
PUBLICLY BID? _____YES _____ NO
TYPE OF WORK?: _____
CONTACT PERSON: _____ TELEPHONE #: (____)_____
CONTACT PERSON'S RELATION TO PROJECT?: _____
(i.e., contract manager, purchasing agent, etc.)

PROJECT NAME: _____
OWNER: _____
CITY/STATE: _____
DOLLAR AMOUNT: $ _____ DATE COMPLETED: _____
PUBLICLY BID? _____YES _____ NO
TYPE OF WORK?: _____
CONTACT PERSON:_____ TELEPHONE #: (____)_____
CONTACT PERSON'S RELATION TO PROJECT?:_____
(i.e., contract manager, purchasing agent, etc.)

PROJECT NAME: _____
OWNER: _____
CITY/STATE: _____
DOLLAR AMOUNT: $ _____ DATE COMPLETED: _____
PUBLICLY BID? _____YES _____ NO
TYPE OF WORK?: _____
CONTACT PERSON: _____ TELEPHONE #:(____)_____
CONTACT PERSON'S RELATION TO PROJECT?: _____
(i.e., contract manager, purchasing agent, etc.)

10. The undersigned certifies that the information contained herein is complete and accurate and hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the City of Newton in verification of the recitals comprising this statement of Bidder's qualifications and experience.

DATE: _____ BIDDER: _____

SIGNATURE: _____

PRINTED NAME: _____ TITLE: _____

END OF SECTION

CERTIFICATE OF NON-COLLUSION

The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee club, or other organization, entity, or group or individuals.

_____
(Signature of individual)

_____
Name of Business

City of Newton

Mayor
Setti D. Warren

Purchasing Department
Nicholas Read ⊛ *Chief Procurement Officer*
1000 Commonwealth Avenue
Newton Centre, MA 02459-1449
purchasing@newtonma.gov

Telephone
(617) 796-1220
Fax:
(617) 796-1227
TDD/TTY
(617) 796-1089

Date

Vendor

Re: Debarment Letter for Invitation For Bid #14-22

As a potential vendor on the above contract, the City requires that you provide a debarment/suspension certification indicating that you are in compliance with the below Federal Executive Order. Certification can be done by completing and signing this form.

Debarment:

Federal Executive Order (E.O.) 12549 "Debarment and Suspension" requires that all contractors receiving individual awards, using federal funds, and all sub-recipients certify that the organization and its principals are not debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency from doing business with the Federal Government.

I hereby certify under pains and penalties of perjury that neither I nor any principal(s) of the Company identified below is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency.

_____ (Name)
_____ (Company)
_____ (Address)
_____ (Address)
PHONE _____ FAX _____
EMAIL _____

_____Signature

_____Date

.

If you have questions, please contact Nicholas Read, Chief Procurement Officer at (617) 796-1220.

Form **W-9**
(Rev. October 2007)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give form to the requester. Do not send to the IRS.

Print or type
See Specific Instructions on page 2.

Name (as shown on your income tax return)

Business name, if different from above

Check appropriate box: ☐ Individual/Sole proprietor ☐ Corporation ☐ Partnership
☐ Limited liability company. Enter the tax classification (D=disregarded entity, C=corporation, P=partnership) ▶
☐ Other (see instructions) ▶

X Exempt payee

Address (number, street, and apt. or suite no.)

Requester's name and address (optional)

City, state, and ZIP code

List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number

or

Employer identification number

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below).

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here **Signature of U.S. person ▶** **Date ▶** Name

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),

2. Certify that you are not subject to backup withholding, or

3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity,

Cat. No. 10231X Form **W-9** (Rev. 10-2007)

CONTRACT FORMS

The awarded bidder will be required to complete and submit documents substantially similar in form to the following.

These forms may need to be modified on account of changed circumstances, and are provided for informational purposes only.

CITY - CONTRACTOR AGREEMENT

CONTRACT NO. C- _____

THIS AGREEMENT made this ___ day of _____in the year Two Thousand and Thirteen by and between the CITY OF NEWTON, a municipal corporation organized and existing under the laws of the Commonwealth of Massachusetts, hereinafter referred to as the CITY, acting through its Chief Procurement Officer, but without personal liability to him, and

hereinafter referred to as the CONTRACTOR.

The parties hereto for the considerations hereinafter set forth agree as follows:

I. **SCOPE OF WORK.** The Contractor shall furnish all labor, materials and equipment, and perform all work required in strict accordance with the Contract Documents for the following project:

NEW SALT & EQUIPMENT STORAGE SHEDS
AT THE CRAFTS STREET DPW MAINTENANCE YARD

II. **CONTRACT DOCUMENTS.** The Contract documents consist of the following documents, which are either attached to this Agreement or are incorporated herein by referenced:

a. This CITY-CONTRACTOR Agreement;

b. The City's Invitation For Bid #14-22 issued by the Purchasing Department;

c. The Project Manual, including the General Conditions and Scope of Work, for New Salt & Equipment Storage Sheds at the Crafts Street DPW Maintenance Yard including the Instructions to Bidders; General Conditions; Special Conditions; MWBE/AA Requirements, Wage Rate Requirements and Wage Rate Schedule(s) including any updated prevailing wage rate schedules if applicable; The Supplementary Special Conditions; General Requirements and Project Specifications; and Drawings, if included or referenced therein;

d. Addenda Number(s) _____;

e. The Bid Response of the CONTRACTOR submitted for this Project and accompanying documents and certifications;

f. Certificate(s) of Insurance and surety bond(s) submitted by the CONTRACTOR in connection with this Project;

g. Duly authorized and executed Amendments, Change Orders or Shipping Orders issued by the CITY after execution of this CITY-CONTRACTOR Agreement.

This CITY-CONTRACTOR Agreement, together with the other documents enumerated in this Article, constitute the entire Agreement between the CITY and the CONTRACTOR.

III. **PRIORITY OF DOCUMENTS.** In the event of inconsistency between the terms of this CITY -CONTRACTOR Agreement and the Project Manual, the terms of this Agreement shall prevail.

IV. **APPLICABLE STATUTES.** All applicable federal, state and local laws and regulations are incorporated herein by reference and the Contractor agrees to comply with same.

V. **CONTRACT TERM.** The term of the awarded contract shall extend until the completion of all work specified in the Contract Documents.

VI. **AUTHORIZATION OF AND PAYMENT FOR WORK PERFORMED.** The execution of this contract does not constitute a notice to proceed or authorization to perform work. No work shall be commenced unless authorized by a written Work Order prepared by City of Newton Public Buildings Department specifying the work to be performed. The Contractor will be paid following completion and acceptance of the work authorized in accordance with the Contract. The City will use best efforts to pay within thirty (30) days of receipt of an invoice for the work authorized or acceptance of the work whichever date is later.

VII. **RESPONSIBILITY FOR THE WORK/INDEMNIFICATION.** The Contractor shall take all responsibility for the work, and shall take all precautions for preventing injuries to persons and property in or about the work and shall defend, indemnify and hold the City harmless from all loss, cost, damage or expense arising from injuries to persons or property in or about the work. The Contractor shall be responsible for any damage which may be caused by the failure or insufficiency of any temporary works. He shall effectively protect his work and shall be liable for all damage and loss by delay or otherwise caused by his neglect or failure so to do.

VIII. **WARRANTY.** Except as may be otherwise provided in the Project Manual, the Contractor shall replace, repair or make good, without cost to the City, any defects or faults arising within one (1) year after date of acceptance of work and materials furnished hereunder (acceptance not to be unreasonably delayed) resulting from imperfect or defective work done or materials furnished by the Contractor.

IX. **PATENT INDEMNIFICATION.** The Contractor agrees to assume the defense of and shall indemnify and save harmless the City and all persons acting for or on behalf of it from all suits and claims against them, or any of them, arising from or occasioned by the use of any material, equipment or apparatus, or any part thereof which infringes or is alleged to infringe on any patent rights. In case such material, equipment or apparatus, or any part thereof, in any such suit is held to constitute infringement, the Contractor, within a reasonable time, shall at its own expense, and as the City may elect, replace such material, equipment or apparatus with non-infringing material, equipment or apparatus, or remove the material, equipment, or apparatus and refund the sums paid therefor.

X. **ASSIGNMENT/SUB-CONTRACTING.** The Contractor agrees that he will not sell, assign or transfer this Contract or any part thereof or interest therein without the prior written consent of the City.

XI. **TERMINATION.** If the work to be done under this Contract shall be abandoned, or if this Contract or any part thereof shall be assigned or transferred, without the previous written consent of the City, or if the Contract or any claim hereunder shall be assigned by the Contractor otherwise than as herein specified, or if at any time the City determines that the conditions herein specified as to the rate of progress are not fulfilled, or that the work or any part thereof, is unnecessarily or unreasonably delayed, or that the Contractor has violated any of the provisions of this Contract, the City may terminate this Contract and/or notify the Contractor to discontinue such work or such part thereof as the City may designate, and the City may thereupon by agreement or otherwise, as it may determine, complete the work, or any part thereof; and for such completion the City for itself or for its Contractor may take possession of and use or cause to be used in the completion of the work thereof any of such materials, apparatus, machinery, implements, and tools of every description as may be found upon said work. Termination pursuant to this paragraph shall not entitle the Contractor to any claim for damages on account thereof, nor shall it relieve the Contractor of any liability under this Contract.

XII. **GOVERNING LAW.** This Contract shall be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts.

XIII. **SEVERABILITY.** The provisions of this Contract are severable. If any section, paragraph, clause or provision of this Contract shall be finally adjudicated by a court of competent jurisdiction to be invalid, the remainder of this Contract shall be unaffected by such adjudication and all of the remaining provisions of this Contract shall remain in full force and effect as though such section, paragraph, clause or provision, or any part thereof so adjudicated to be invalid, had not been included herein, unless such remaining provisions, standing alone, are incomplete and incapable of being executed in accordance with the intent of the parties to this Contract.

XIV. **AMENDMENTS TO THIS CONTRACT.** This Contract may not be amended except in writing executed in the same manner as this CITY-CONTRACTOR Agreement.

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

CONTRACTOR

By_____

Print Name_____

Title _____

Date _____

Affix Corporate Seal Here

City funds are available in the following account:
38E11512-5825 - _____

I further certify that the Mayor, or his designee, is authorized to execute contracts and approve change orders.

By_____
Comptroller of Accounts

Date_____

CITY OF NEWTON

By_____
Chief Procurement Officer

Date_____

By_____
Interim Commissioner of Public Buildings

Date_____

Approved as to Legal Form and Character

By_____
Associate City Solicitor

Date_____

CONTRACT AND BONDS APPROVED

By_____
Mayor or his designee

Date_____

CERTIFICATE OF AUTHORITY - CORPORATE

1. I hereby certify that I am the Clerk/Secretary of _____

(insert full name of Corporation)

2. corporation, and that _____

(insert the name of officer who signed the **contract and bonds**.)

3. is the duly elected _____

(insert the title of the officer in line 2)

4. of said corporation, and that on _____

(insert a date that is ***ON OR BEFORE*** the date the officer signed the **contract and bonds**.)

at a duly authorized meeting of the Board of Directors of said corporation, at which all the directors were present or waived notice, it was voted that

5. _____ the _____

(insert **name** from line 2) (insert **title** from line 3)

of this corporation be and hereby is authorized to execute contracts and bonds in the name and on behalf of said corporation, and affix its Corporate Seal thereto, and such execution of any contract of obligation in this corporation's name and on its behalf, with or without the Corporate Seal, shall be valid and binding upon this corporation; and that the above vote has not been amended or rescinded and remains in full force and effect as of the date set forth below.

6. ATTEST: _____ *AFFIX CORPORATE SEAL HERE*

(Signature of **Clerk or Secretary**)*

7. Name: _____

(Please print or type name in line 6)*

8. Date: _____

(insert a date that is ***ON OR AFTER*** the date the officer signed the **contract and bonds**.)

* The name and signature inserted in lines 6 & 7 must be that of the Clerk or Secretary of the corporation.

CERTIFICATION OF TAX COMPLIANCE

Pursuant to M.G.L. c.62C, §49A and requirements of the City, the undersigned acting on behalf of the Contractor certifies under the penalties of perjury that the Contractor is in compliance with all laws of the Commonwealth relating to taxes including payment of all local taxes, fees, assessments, betterments and any other local or municipal charges (unless the Contractor has a pending abatement application or has entered into a payment agreement with the entity to which such charges were owed), reporting of employees and contractors, and withholding and remitting child support.*

_____
**Signature of Individual
or Corporate Contractor (Mandatory)

_____
*** Contractor's Social Security Number
(Voluntary) or Federal Identification Number

Print Name:_____

By: _____
Corporate Officer
(Mandatory, if applicable)

Date: _____

Print Name:_____

* The provision in this Certification relating to child support applies only when the Contractor is an individual.

** Approval of a contract or other agreement will not be granted until the City receives a signed copy of this Certification.

*** Your social security number may be furnished to the Massachusetts Department of Revenue to determine whether you have met tax filing or tax payment obligations. Providers who fail to correct their non-filing or delinquency will not have a contract or other agreement issued, renewed, or extended.

CITY OF NEWTON, MASSACHUSETTS

PERFORMANCE BOND

Know All Men By These Presents:

That we,_____, as PRINCIPAL, and _____, as SURETY, are held and firmly bound unto the City of Newton as Obligee, in the sum of _____ dollars ($_____) to be paid to the Obligee, for which payments well and truly to be made, we bind ourselves, our respective heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the said PRINCIPAL has made a contract with the Obligee, bearing the date of _____, 20_____, for the construction of _____, in Newton, Massachusetts.
(Project Title)

Now, the condition of this obligation is such that if the PRINCIPAL and all Sub-contractors under said contract shall well and truly keep and perform all the undertakings, covenants, agreements, terms and conditions of said contract on its part to be kept and performed during the original term of said contract and any extensions thereof that may be granted by the Obligee, with or without notice to the SURETY, and during the life and any guarantee required under the contract, and shall also well and truly keep and perform all the undertakings, covenants, agreements, terms and conditions of any and all duly authorized modifications, alterations, changes or additions to said contract that may hereafter be made, notice to the SURETY of such modifications, alterations, changes or additions being hereby waived, then this obligation shall become null and void; otherwise, it shall remain in full force, virtue and effect.

In the event, that the contract is abandoned by the PRINCIPAL, or in the event that the Obligee terminates the employment of the PRINCIPAL or the authority of the PRINCIPAL to continue the work said SURETY hereby further agrees that said SURETY shall, if requested in writing by the Obligee, take such action as is necessary to complete said contract.

In Witness Whereof, the PRINCIPAL and SURETY have hereto set their hands and seals this _____day of _____, 20_____.

PRINCIPAL	SURETY
_____	_____
BY_____ (SEAL)	BY_____ (ATTORNEY-IN-FACT) (SEAL)
_____ (TITLE)	
ATTEST: _____	ATTEST: _____

CITY OF NEWTON, MASSACHUSETTS

PAYMENT BOND

Know All Men By These Presents:

That we,_____, as PRINCIPAL, and _____, as SURETY, are held and firmly bound unto the City of Newton as Obligee, in the sum of _____ dollars ($_____) to be paid to the Obligee, for which payments well and truly to be made, we bind ourselves, our respective heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Whereas, the said PRINCIPAL has made a contract with the Obligee, bearing the date of _____, 20_____, for the construction of _____, in Newton, Massachusetts.
(Project Title)

Now, the conditions of this obligation are such that if the PRINCIPAL and all Sub-contractors under said contract shall pay for all labor performed or furnished and for all materials used or employed in said contract and in any and all duly authorized modifications, alterations, extensions of time, changes or additions to said contract that may hereafter be made, notice to the SURETY of such modifications, alterations, extensions of time, changes or additions being hereby waived, the foregoing to include any other purposes or items set out in, and to be subject to, provisions of M.G.L. c. 30, sec. 39A, and M.G.L. c. 149 sec. 29, as amended, then this obligation shall become null and void; otherwise it shall remain in full force, virtue and effect.

In Witness Whereof, the PRINCIPAL and SURETY have hereto set their hands and seals this _____day of _____, 20____.

PRINCIPAL	SURETY
_____	_____
BY_____ (SEAL)	BY_____ (ATTORNEY-IN-FACT) (SEAL)
_____ (TITLE)	
ATTEST: _____	ATTEST: _____

GENERAL CONDITIONS

TABLE OF CONTENTS

	PAGE
1.CONTRACT DOCUMENTS	23-27
2.THE CITY - GENERAL PROVISIONS	28-29
3.THE ARCHITECT - GENERAL PROVISIONS	30-31
4.THE CONTRACTOR - GENERAL PROVISIONS	32-46
5.SUBCONTRACTORS AND SUPPLIERS	47-48
6.PROJECT COORDINATION	49
7.PROSECUTION AND COMPLETION	50-53
8.PROGRESS PAYMENTS, FINAL PAYMENT & ACCEPTANCE	54-59
9.PROTECTION OF PERSONS AND PROPERTY	60-62
10.LEGAL REQUIREMENTS AND INSURANCE	63-69
11.CHANGES IN THE WORK	70-72
12.CHANGES IN CONTRACT PRICE OR CONTRACT TIME	73-78
13.GUARANTEES	79-81
14.TERMINATION	82-84
15.DISPUTES	85-86

CITY OF NEWTON
PUBLIC BUILDINGS DEPARTMENT
CHAPTER 149 VERSION

ARTICLE 1 - CONTRACT DOCUMENTS

1.1 Use of Terms:

1.1.1 The following terms used in this Section or elsewhere in the Contract Documents, shall have these meanings:

Addendum – A written modification, clarification, correction or other change to the Contract Documents issued by the Official prior to the date stated for the receipt of bids.

Application for Payment - The form furnished by the **Official** to be used by the **Contractor** in requesting payment, and which shall enclose the affidavit required in the Contract Documents.

Architect - The individual, partnership, corporation, joint venture, or any combination thereof, named as **Architect** in the agreement who will have the rights and authority assigned to the **Architect** in the Contract Documents. The term **Architect** means the **Architect** or its authorized representative.

Business Day - Any day except Saturdays, Sundays and legal holidays observed by the **City**. The term "day" means a calendar day.

Change Authorization - A written order executed by the **City** directing the **Contractor** to make changes in the Work or giving the basis for a potential change in Contract Price or Contract Time for incorporation into the Contract Documents by Change Order.

Change Order - A written instrument which when fully executed by the **City** amends the Contract Documents to provide for changes in the Work, or in Contract Price or Contract Time.

City - The City of Newton, a municipal corporation in the Commonwealth of Massachusetts, acting by its Public Buildings Commission, represented by the Director of the Public Buildings Department or his authorized representative.

Claim - A written demand of assertion by the **City** or **Contractor**, which is properly certified according to the requirements of Paragraph 15.2.1, seeking an adjustment in Contract Price and payment of monies due, an extension or shortening in Contract Time, the adjustment or interpretation of Contract terms, or any other relief arising under or relating to the Contract, after a determination by the **Architect** or **City** under the appropriate provision of the Contract Documents.

Contract/Contract Documents – This Agreement, fully executed; the Certificate of Authority; all Addenda; the Letter of Award; the Project Manual including MWBE/AA Requirements, Wage Rate Requirements and Wage Rate Schedule including any updated prevailing wage rate schedules as applicable, Supplementary Conditions; the General Conditions; the Drawings; the Specifications; the Invitation for Bids; the Contractor's bid; all bonds submitted; All Change Authorizations and Change Orders when fully executed.

Contract Time – The time commencing upon the date of execution of the Contract by the Mayor of the City and continuing through the date of Final Completion.

Contract Price – The not to exceed lump sum price representing full compensation for everything furnished, done by or resulting to the **Contractor** in carrying out the Contract.

Contractor - Person or firm named "The Contractor" in the Agreement with whom the **City** has awarded and entered into the Agreement.

Correction Period - The period of time within which the **Contractor** shall in accordance with the Contract Documents, either correct, or if rejected, remove and replace, defective Work.

Date for Commencement of the Contract Time - The date when the Contract Time starts to run.

Day – A calendar day.

Defective Work - Work that is unsatisfactory, deficient or damaged, does not conform to the Contract Documents, or does not meet the requirements of any inspection, test or approval.

Drawings – The graphic and pictorial part of the Contract Documents depicting the Work including plans, elevations, sections, details, schedules and diagrams Drawings shall not serve nor be used as Shop Drawings.

Final Acceptance - The **Official's** written notice to the **Contractor** accepting the Work, following the **Official's** concurrence with the **Architect's** determination that the Work has been completed and is acceptable.

Laws - Laws, including statutes, by-laws, rules, regulations, codes, resolutions and ordinances, or orders.

M.G.L. - Massachusetts General Laws.

Notice of Claim – A clearly marked written notice that states the general nature of the Claim delivered by the party making the Claim to the other party no later than thirty (30) days after the determination giving rise to the Claim.

Official - The Commissioner of the Public Buildings Department, acting on behalf of the **City** in the execution of the Agreement, or his/her authorized representative.

Owner - The City of Newton: see definition for "City".

Partial Utilization - Use by the **City** of a portion of the Work before reaching Substantial Completion for all the Work.

Progress Schedule – The Schedule which shows the **Contractor's** approach to planning, scheduling, and execution of the Work.

Project - The total construction of which the Work may be the whole, or a part, as indicated in the Contract Documents.

Site – The land on which the Project is located, indicated on the Site Drawings and showing its physical position in relation to the adjacent lands.

Specifications - Parts of the Contract Documents consisting of written requirements for technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and performance of related services.

Sub-agreement – A subcontract or purchase order awarding part of the Work to a Subcontractor or Supplier.

Subcontractor - A person having a Sub-agreement for performing labor at the site, or for performing labor and furnishing materials/equipment. *Filed sub-bid Subcontractor is one who performs a sub trade for which the City requested filed sub-bids.*

Submittals - Includes Shop Drawings, brochures, samples, and all those other documents required for submission by the Contract Documents. The term *Shop Drawings* includes drawings, diagrams, illustrations, standard schedules, performance charts, instructions, and other data prepared by or for the **Contractor** to illustrate some part of the Work, or by a Supplier and submitted by the **Contractor** to illustrate items of materials or equipment.

Substantial Completion - Either the Work has been completed except for Work items representing less than one percent (1%) of the adjusted Contract Price, or completed and opened to public use except for minor incomplete or unsatisfactory items that do not materially impair the usefulness of the Work required by the Contract.

Supplier - A manufacturer, fabricator, distributor, materialman or vendor having a Sub-agreement for furnishing materials and equipment and/or not for performing labor at the site.

Total Float - Number of Business Days by which Work may be delayed from its Early Dates without necessarily extending the Contract Times. *Contract Float* is the number of Business Days between the **Contractor's** anticipated date for early completion of all or part of the Work and the corresponding Contract Time.

Underground Utilities - All pipelines, conduits, ducts, cables, wells, tanks, tunnels, and appurtenances, or other similar facilities, installed underground to furnish: water, electricity, gases, steam, petroleum products, telephone, communications, cable TV, sewerage and drainage removal, traffic, or control systems.

Work - The entire completed construction, or its various parts, as specified in the Contract Documents. Work is the result of

performing and furnishing all services, obligations, responsibilities, labor, materials, equipment, temporary facilities, and incidentals necessary to complete the scope under the Contract Documents. Whenever the term "execution" is used with reference to the Work, it includes the performance and/or furnishing of the Work.

1.1.2 Any period of time in days will be computed to exclude the first and include the last day. If the last day falls on a non-Business Day, it shall be omitted from the computation. The term "registered mail" includes certified mail with return receipt requested. The term "person" means individuals, firms, partnerships, corporations, receivers, trustees, joint ventures, and any combinations of them. The term "State" or "Commonwealth" means the Commonwealth of Massachusetts.

1.1.3. Other terms used in this Section shall have the meanings assigned to them elsewhere in the Contract Documents, and if not assigned and where the context will permit, as used or defined in Massachusetts General Laws (M.G.L.).

1.2 Interpretations:

1.2.1. Whenever the term "the **Contractor**" is used concerning an action, obligation or event, it shall cover, even if not expressly stated, actions or obligations of, events involving, any Subcontractor, Supplier, or anyone for whom any of them may be liable, unless the context requires otherwise.

1.2.2. Whenever a provision obligates the **Contractor** to reimburse the **City** for certain costs incurred, the **City** is entitled to withhold a corresponding set-off against any payment, and to amend the Contract Price accordingly.

1.2.3. Whenever a provision covering delay, extension, or acceleration which in the Contract Documents covers delay, rescheduling, extended performance, disruption, interference, inefficiency, productivity, and production losses, acceleration, or hindrance and associated cost(s) for which the **City** is not responsible, or which is not unreasonable under the circumstances, or which was within the contemplation of the parties, specifies that "the **City** shall authorize the necessary change in Contract Time **only**", the authorized change in Contract Time shall be the **Contractor's** sole and exclusive remedy with respect to the **City** for any such delay, extension, or acceleration, however caused, resulting from the event contemplated by that provision.

1.2.4 A provision requiring the **Contractor** to "defend, indemnify and hold harmless the **City** and the **Architect..**" or covering claims against or liability of the **City** and/or the **Architect**, shall include the **City** and **Architect**, their respective consultants, agents, directors, officers, shareholders and employees and any combination of any of them, and the **City's** agencies or department issuing permits covering the Work. A provision requiring the **Contractor** to so defend, indemnify and hold harmless the **City** and **Architect** shall also require the **Contractor** to defend, indemnify and hold harmless the **City** and **Architect**, as interpreted, from and against all of the specified claims, including those caused in part by the negligence or other liability-creating conduct or omissions of the **City** or **Architect**. The **Contractor** shall not be required to indemnify the **City** or **Architect** against liability for loss or damage resulting from the sole negligence of the **City** or **Architect**.

1.2.5 Any reference to an Article or paragraph in these General Conditions, without identification of the particular Section, shall mean a reference to these General Conditions. Terms capitalized in these General Conditions include terms defined in paragraph 1.1.1 or paragraph 1.1.3.

1.2.6 Each Article in this Section contains sub-articles, numbered as this sub-article 1.2 is numbered; parts, numbered as this part 1.2.6 is numbered; and sub-parts - all of which are considered "paragraphs". A reference to a paragraph means a reference to the entire sub-article, a part, or a sub-part, or any combination of them, depending on the intent of the reference.

1.3 Applicable Law:

1.3.1 This Contract is made subject to all laws of the Commonwealth of Massachusetts.

1.3.2 If the Contract Documents contain any unlawful provisions, such unlawful provisions shall be of no effect. Upon the application of either party, the unlawful provision shall be considered stricken from the Contract Documents without affecting the remainder of the Contract Documents.

1.3.3 All provisions of law required to be inserted in the Contract Documents shall be and are inserted herein. If through mistake, neglect, oversight or otherwise, any such provision is not herein inserted or inserted in improper form, upon the application of either party, the Contract Documents shall be changed by the **City**, at no increase in Contract Price or extension in Contract Time, so as to strictly comply with the law and without prejudice to the rights of either party hereunder.

1.4 Intent of the Contract Documents:

1.4.1 It is the intent of the Contract Documents to describe and provide for a functionally complete Project, or Work, to be constructed in accordance with the Contract Documents. In addition to the work expressly called for in the Drawings and Specifications, any other Work, materials or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result shall be provided, at no increase in Contract Price or extension in Contract Time, and without requiring any changes in the Work, whether or not specifically called for.

1.4.2 Except as otherwise provided in the Contract Documents, words which have an accepted technical or trade meaning used to describe any Work, materials or equipment, shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, whether specifically or by implication, shall mean the latest standard specification, manual, code in effect at the date established for receipt of Sub-Bids, unless otherwise expressly stated.

1.4.3 Except as provided by the requirements of M.G.L. Chapter 149, Section 44F, the Divisions and Sections of the Specifications and the identification of any Drawings shall (a) not control the **Contractor** in delineating Work to be performed by specific suppliers, and (b) be complementary, and anything mentioned or shown in a Division or in a specific Drawing shall be of like effect as if shown in all divisions of the specifications and all Drawings.

1.4.4 Whenever the terms "as ordered", "as directed", "as required", "as allowed", "as approved" or terms of like effect are used, or the adjectives "reasonable", "suitable", "acceptable", "proper" or "satisfactory" or adjectives of similar effect are used to describe a requirement, direction, review or judgment of the **Architect** (or the **City**) as to the Work, it is intended that the requirement, direction, review or judgment will be solely to evaluate the Work for compliance with the Contract Documents. No use of any such term or adjective mentioned above, or provision of any standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change the duties and responsibilities of the **Official**, the **Contractor**, or the **Architect**, or any of their consultants, agents or employees from those assigned in the Contract Documents, nor shall it be effective to assign to the **Official** or the **Architect**, or any of their 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 the Contract Documents.

1.5 Priority of the Contract Documents:

1.5.1 The Contract Documents are complementary, and anything mentioned or shown in a part of the Contract Documents shall be of like effect as if shown in all parts of the Contract Documents. In resolving conflicts, the Contract Documents shall be given the priority determined by the **Architect**, with regard to matters affecting the design of the Work, and the **Official**, with regard to all other matters, to be consistent with their intent and necessary to produce the intended result. Subject to such interpretation by the **Architect** or **Official**, the Contract Documents shall be interpreted on the basis of the following priorities, the first listed having the highest priority:

.1 Change Orders, Change Authorizations, and written amendments to the Contract, those dated later taking precedent over those dated earlier;

.2 Owner-Contractor Agreement;

.3 General Conditions;

.4 Technical Specifications; and

.5 Drawings.

1.5.2 If the issue of priority involves the Technical Specifications and the Drawings, figured dimensions shall govern over scaled dimensions. Work not particularly shown, identified, sized, or located shall be the same as similar Work that is shown or specified. Detail Drawings shall govern over general Drawings, larger scale Drawings take precedence over smaller scale Drawings and Contract Drawings govern over Shop Drawings. Whenever notes, specifications, dimensions, details, or schedules in the Specifications or in the Drawings, or between the Specifications and the Drawings, or between Change Order or Change Authorization Drawings and Contract Drawings, conflict, the higher performance requirement shall be furnished by the **Contractor** at no increase in the Contract Price or the Contract Time.

1.5.3 Compliance with these priority conditions shall not justify any changes in the Work, or any increase in Contract Price or Contract Time, unless any such compliance results in Work that may not reasonably be inferred from the Contract Documents as being required to produce the intended result.

1.6 Information and Instructions for Contract Documents:

1.6.1 The **Contractor** shall carefully study all contract Documents and other instructions from the **Architect** and the **Official** as they are delivered, and procure from the **Architect** such special information, detailed drawings, etc., as may be necessary for the proper performance of the Work.

1.6.2 Where drawings show outline or descriptive representations of repetitive features, the **Contractor** shall construe them in exact accordance with the corresponding features which are common to similar items or materials and which are completely drawn and specified.

1.6.3 Where the statement "Consult Drawing No. __" or "Refer to Drawing No. __" occurs in the Specifications, such references to a Drawing have been made solely for the convenience of the **Contractor** to help identify the item under consideration and to locate the typical detail of such item in the set of Contract Drawings. It is not the intention of such references, however, to list each and every Drawing on which a certain item may occur.

1.7 Ownership and Use of the Contract Documents:

1.7.1 Unless otherwise provided in the Supplementary Conditions, the **Official** shall furnish to the **Contractor** one (1) copy of the Contract Documents at no cost.

1.7.2 Neither the **Contractor**, nor any Subcontractor or Supplier shall have or acquire any title to or ownership rights in any of the Drawings, Specifications or other Contract Documents, and they shall not reuse any of them on extensions of the Project or any other project without prior written consent of the **City** and the **Architect**. The **Contractor**, Subcontractors and Suppliers are granted a limited license to use and reproduce portions of the Contract Documents as appropriate for use in the execution of the Work. Copies made under this license shall bear the copyright notice shown on the Contract Documents.

1.7.3 All work papers, questionnaires and other written material prepared or collected by the **Contractor** in the course of completing the Work to be performed under this Contract shall at all times be the exclusive property of the **City**. The **Contractor** shall not use such materials for any purposes other than the purpose of this Contract without the prior written consent of the **Official**.

1.8 Relationship with the City:

1.8.1 The **Contractor** is retained solely for the purpose of and to the extent set forth in the Contract Documents. The **Contractor's** relationship to the **City** during the term of this Contract shall be that of an independent Contractor. The **Contractor** shall have no capacity to involve the **City** in any contract nor to incur any liability on the part of the **City**. The **Contractor**, its agents or employees shall not be considered as having the status or pension rights of an employee; provided that the **Contractor** shall be considered an employee for the purpose of M.G.L. Chapter 268A (the Conflict of Interest Law). The **City** shall not be liable for any personal injury to or death of the **Contractor**, its agents or employees.

1.8.2 The **Contractor** shall be solely responsible for construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work unless the Contract Documents give other specific instructions concerning these matters. Where the terms and conditions for the delivery or provision of goods or services by the **Contractor** to the City are expressly set forth in the Contract Documents or are incorporated herein by reference, those terms and conditions shall be complied with by the **Contractor**.

1.8.3. Before they can be binding on the Parties, all amendments to the Contract must be in writing and signed by the **Official** and the **Contractor,** approved as to the availability of a sufficient appropriation and filed with the City Comptroller, and signed by the Mayor of the City.

ARTICLE 2 - THE CITY - GENERAL PROVISIONS

2.1 The City May Stop the Work:

2.1.1 If the Contractor fails to correct work which is not in accordance with the requirements of the Contract Documents or, If the Work is *defective*, or the **Contractor** fails to provide sufficient skilled workers or suitable materials or equipment, or fails to execute Work so that in the judgment of the **City** the completed Work will conform to the Contract Documents, the **City** may order the **Contractor** to stop all or part of the Work in question, until the problem has been corrected. This right of the **City** to stop the Work shall not create or impose any duty on the **City** to exercise this right for the benefit of the **Contractor** or any other party. The **Contractor** shall remain responsible for maintaining progress, and shall not be entitled to any increase in Contract Time or Contract Price, and the **Contractor** shall reimburse the **City** for all direct, indirect or consequential costs incurred by the **City** and attributable to such an order to stop the Work.

2.2 Availability of Lands (Including Properties):

2.2.1 The Contract Documents indicate the lands upon which the Work is to be performed, including rights-of-way and easements for access that are furnished by the **City**.

2.2.2 Any additional lands, rights-of-way and easements not furnished that the **Contractor** deems necessary shall be obtained by the **Contractor** at no increase in Contract Price or Contract Time. The **Contractor** shall obtain and submit to the **City** all required permits from the State, the proper Federal Government agency, Public Governmental Body or public utility or form the property owner(s) for the use of lands and access so obtained.

2.3 Reference Points:

2.3.1 The **City** through the **Architect** shall provide reference points and the **Contractor** will stake such points and will verify them in the field if requested to do so. The **Contractor** shall be responsible for laying out the Work, protecting and preserving those reference points, and he shall make no changes at all without the prior written approval of the **Architect**. The **Contractor** shall: report to the **Architect** whenever any reference point is lost or destroyed or requires relocation due to necessary changes in grades or locations; be responsible for the accurate replacement or relocation of any lost or destroyed reference points by professionally qualified personnel; and assume any resultant cost or delay.

2.4 Clerk of the Works:

2.4.1 A Clerk of the Works may be engaged by the **City** for this Project. In the event that a **Clerk of the Works** is so engaged, he/she shall not, have any authority to order any changes in the Work, nor to make any decision relating to arrangement, design or construction, or to the disposition of materials or workmanship, or to the conduct of the Work without the written authorization of the **Official**.

2.4.2 The **Clerk of the Works** shall have access to the premises and all areas of the Project at all times. The **Contractor** shall provide full cooperation to the Clerk in the performance of his/her duties.

2.5 Limitations on the City's Responsibilities

2.5.1 The **City** is not responsible for the **Contractor's** means, methods, techniques, sequences or procedures applicable to the Work; nor for safety precautions and programs related to safety. The **City** is not responsible for the **Contractor's** failure to execute the Work in accordance with the Contract Documents; nor for the acts or omissions of the **Contractor** or of any Subcontractor, any Supplier or anyone for whose acts the **Contractor** or any of the Subcontractors or Suppliers may be liable.

2.5.2 Neither the **City** nor the **City's** consultants are responsible for the acts or omissions of the **Contractor** or of any Subcontractor, any Supplier, or anyone for whose acts the **Contractor** or any of the Subcontractors or Suppliers may be liable.

2.5.3 The **City's** authority to review any of the **Contractor's** Progress Schedules, or the **City's** decision to raise or not to raise any objections about such Progress Schedule Submittals, shall not impose on the **City** any responsibility for the timing, planning, scheduling or execution of the Work, nor in any way give rise to any duty or responsibility on the part of the **City** to exercise this authority for the benefit of the **Contractor**, any Subcontractor or Supplier, or any other party.

2.5.4 Neither the **City's** authority to review the **Contractor's** certificates and policies of insurance as set forth in the Instructions to Bidders, nor the **City's** decision to raise or not to raise any objections about those certificates and policies, shall in any way give

rise to any duty or responsibility on the part of the **City** to exercise this authority for the benefit of the **Contractor**, any Subcontractor or Supplier, or any other party.

2.6 No Waiver of Legal Rights:

2.6.1 The **City** reserves the right to correct any error in any progress payment that may have been paid. The **City** reserves the right, should proof of *defective* Work be discovered after final payment, to claim, and recover from the **Contractor** and his surety, or either of them, sufficient sums to correct, or remove and replace, the *defective* Work.

2.6.2 Any waiver by the **City** or the **Official** of any provision of the Contract Documents shall be in writing, and shall apply only to the particular matter concerned and not to other similar or dissimilar matters. Any waiver of any breach of this Contract shall not be held to be a waiver of any other or subsequent breach.

2.7 Miscellaneous Provisions:

2.7.1 Written communications from the **Official** to the **Contractor** will in general be issued directly to the **Contractor** with copy to the **Architect**. Written communications from the **Contractor** to the **Official** shall be issued to the **Official** with copy to the **Architect**.

2.7.2 Any written direction or interpretation issued by the **Architect** to the **Contractor** must contain the formal endorsement thereon by the **Official**, or the **Official's** representative, for it to be considered valid or effective.

2.7.3 If the **City** retains another person for the Project or the Work who is not the **Architect's** agent or employee, the duties, responsibilities and limitations of authority of that person will be provided in the Supplementary Conditions.

2.7.4 The **City** shall make payments to the **Contractor** as provided in the Contract Documents, and as required by Law.

2.7.5 The **City** may issue unilaterally, or negotiate, at the **City's** discretion, Change Orders and Change Authorizations as provided in Article 11 of the General Conditions. Except as recognized under paragraph 11.1.3, only the **City** is empowered under the Contract Documents to order or cause changes in the Work.

2.7.6 The **City** may unilaterally delay all or any part of the Work and correspondingly adjust or negotiate adjustments in Contract Price or Contract Time, as provided in Article 11 of the General Conditions. Except as recognized in paragraph 7.5, only the **City** is empowered under the Contract Documents to order or cause **City**-caused delays to all or any part of the Work.
2.7.7 Decisions for which the **City** is responsible under the Contract Documents shall be made promptly and, in any event, within thirty (30) days after receipt of written submission but if a decision requires extended investigation and study, it will be made as permitted by M.G.L. Chapter 30, Section 39P.

2.8 Rights to Data

2.8.1 All data consisting of, but not limited to plans, drawings designs, specifications, computer programs, technical reports and operating manuals delivered, developed or produced or paid under the requirements of the Contract Documents shall be the property of the **City**. The **City** maintains all rights to such data including the right to use, duplicate, and disclose, it in whole or in part, in any manner and for any purpose. If that data is copyrightable, the **Contractor** may copyright it subject to the right of the **City**. The **City** reserves a royalty-tree, nonexclusive and irrevocable license to use, duplicate, publish and disclose such data, in whole or in part, and to authorize others to do so. The **City** shall include provisions to implement, maintain and effectuate the provisions of these rights in all Sub-agreements which produce copyrightable data.

2.9 Contractor Evaluation

2.9.1 As required by M.G.L. Chapter 149, §§44D(7) and (16) and 810CMR 8.00 *et seq*., the **City** will submit a completed Standard Contractor Evaluation Form to the Division of Capital Asset Management (DCAM) for the **Contractor** and each Subcontractor, with a copy to the Contractor/Subcontractor. The evaluation will be submitted within 70 days for the **Contractor** and within 90 days for the Subcontractors from the completion of the Project or from the date of termination of the Contractor or Subcontractor. At approximately 50% completion of the Project the **City** will advise the **Contractor** of the **City's** preliminary evaluation for informational purposes. The Standard Contractor Evaluation Form will rate the performance of the **Contractor** and Subcontractors, and will be completed by the **City's** Project Manager. The **City** will not negotiate the contents of the Contractor Evaluation Form or the Project rating for any reason.

ARTICLE 3 - THE ARCHITECT-GENERAL PROVISIONS

3.1 General:

3.1.1. In the event of the termination of the employment of the **Architect**, the **City** may appoint an **Architect** whose status under the Contract Documents shall be that of the former **Architect**. Nothing in these Contract Documents shall create a contractual relation between the **Architect** and the **Contractor**.

3.1.2. The **Architect** will make on-site observations at appropriate intervals to observe the quality of in-progress and completed Work, and to determine whether the Work is being executed so that the Work, when completed, will be in accordance with the Contract Documents. Based on those on-site observations, the **Architect** will endeavor to guard the **City** against *defective* Work and will keep the **Official** informed of the progress of the Work.

3.1.3. The **Architect** will have authority to disapprove or reject Work that the **Architect** believes to be *defective* Work. When the **Contractor** has been notified by the **Architect** of rejection of *defective* work, the **Contractor** shall take prompt action to correct the *defective* work.

3.1.4 On-site observations by the **Architect** or any project representatives of the **City** shall not relieve the Contractor from the obligation to perform the Work in accordance with the Contract Documents, or represent acceptance of defective work, nor give rise to any duty on their part to make the observations for the benefit of the **Contractor** or any other person.

3.2 Interpretations: Time for Decisions, Approval:

3.2.1. The **Architect** will be the initial interpreter of the requirements for the Contract Documents, and in such capacity will render determinations as to the acceptability of Work performed, subject to the provisions of paragraph 3.2.4. Unless otherwise provided in the Contract Documents, notices, proposals, or other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents shall be referred initially to the **Architect** in writing with a request for a written decision, which the **Architect** will render within a reasonable time. Once given, the **Architect's** determination shall be final and binding on the **Contractor** unless the **Contractor** delivers to the **Official** written notice of a claim within thirty (30) days after receipt of such determination, in which case the provisions of Article 15 will apply.

3.2.2. When functioning as interpreter and making determinations the **Architect** will not be liable for any interpretation or determination rendered in good faith. The rendering of an interpretation or other determination by the **Architect** about any notice, request or other matter will be a requisite to the exercise by the **Contractor** of any rights or remedies the **Contractor** may otherwise have under the Contract Documents or by Law concerning any claim, dispute or other similar matter.

3.2.3 A decision on interpretation of the Specifications, approval of equipment, material or any other approval, or progress of the work, shall require that the decision be made promptly and, in any event, no later than thirty (30) days after the written submission for decision; but if such decision requires extended investigation and study, the **Official** or **Architect** shall, within thirty (30) days after the receipt of the submission, give written notice of the reasons why the decision cannot be made within the thirty (30) day period and the date by which the decision will be made.

3.2.4 In giving instructions, the **Architect** shall not have the authority to direct any change in the Work, whether or not involving extra cost, without the prior written authorization of the **Official** in each instance.

3.3 Limitations on the Architect's Responsibilities

3.3.1 Neither the **Architect's** authority to act under this Article 3 or elsewhere in the Contract Documents nor any decision made by the **Architect** in good faith to exercise or not to exercise such authority shall give rise to any duty or responsibility of the **Architect** to the **Contractor**, any Subcontractor, or any Supplier, any surety for any of them, or any other person.

3.3.2 The **Architect** is not responsible for the **Contractor's** means, methods, techniques, sequences or procedures applicable to the Work, or safety precautions and programs concerning safety. The **Architect** is not responsible for the **Contractor's** failure to perform or furnish the Work in accordance with the Contract Documents. Nor is the **Architect** responsible for the acts or omissions of the **Contractor** or of any Subcontractor, any Supplier, or of anyone for whose acts any of them may be liable.

3.4 Clarifications and Interpretations; Unit Price Work:

3.4.1 The **Architect** will issue, within a reasonable period of time, written clarifications or interpretations of the requirements of

the Contract Documents, as the **Architect** may determine necessary, which shall be consistent with or reasonably inferable from the intent of the Contract Documents.

3.4.2. The **Architect**, subject to a prior review with the **Official**, will make determinations about the actual quantities and classes of Unit Price Work done by the **Contractor**.

3.4.3. Any clarification, interpretation or determination by the **Architect** under this paragraph 3.4 shall be final and binding on the **Contractor** unless the **Contractor** delivers to the **City** written notice of a change as provided in paragraph 11.1.3 within thirty (30) days after receipt of that decision.

ARTICLE 4 -THE CONTRACTOR -GENERAL PROVISIONS

4.1 General Responsibility

4.1.1. The **Contractor**, all Subcontractors, and all parties employed on the Work, shall perform their Work in a good and workman like manner and in accordance with the Contract Documents.

4.1.2. The **Contractor** shall not assign the whole or any part of the work under this Contract or any monies due or to become due hereunder without prior written consent of the Official. In the event that the **Contractor** assigns all or any part of any monies due or to become due under this Contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any monies due or to become due to the **Contractor** shall be subject to prior claims of all persons, firms and corporations for services rendered or materials supplied for the performance of the Work called for in this Contract.

4.1.3. The **Contractor** shall conform to all determinations and directions of the **Official** in accordance with provisions of the Contract Documents concerning all questions which may arise relating to the Work.
4.1.4 The Contractor shall comply with and give all notices required by laws, ordinances, codes, rules and regulations and lawful orders of public authorities applicable to performance of the Work.

4.2 Review of the Contract Documents:

4.2.1. Before undertaking each part of the Work, the **Contractor** shall study and compare the Contract Documents with each other, verify pertinent figures and applicable field measurements, and coordinate related requirements for dependent Work such as location, dimensions, fit, completeness, consistency, etc.

4.2.2. The **Contractor** shall notify the **Official** in writing of any conflict, error or omission in the Contract Documents the **Contractor** recognizes, and shall obtain a written interpretation or clarification from the **Official** before proceeding with any affected Work. Unless authorized by the **Official** in writing, any work done by the **Contractor** prior to obtaining that interpretation or clarification which is directly or indirectly affected by same, will be at the **Contractor's** risk and the **Contractor** shall bear all resulting costs and delays. The **Contractor** shall be responsible for any costs or delays resulting from any unnecessary requests for clarification submitted to the **Official** by the **Contractor** that can be determined from the Contract Documents.

4.2.3. If the **Contractor** performs Work which involves a conflict, error or omission, he shall assume responsibility for that performance and shall bear all resulting costs and delays, as long as he actually recognized the conflict, error, or omission or if he should have reasonably have recognized it by reason of, but not limited to, the **Contractor's** Bid estimate or usage of the trade.

4.3 Supervision and Project Management:

4.3.1. The **Contractor** shall supervise and direct the Work competently, applying the skills, expertise and attention necessary to perform the Work in accordance with the Contract Documents. The **Contractor** shall be solely responsible for any means, methods, techniques, sequences and procedures applicable to the Work, unless a specific means, method, techniques, sequence or procedure is indicated in or required by the Contract Documents. The Contractor shall be responsible to the **City** for acts and omissions of the Contractors' employees, subcontractors and their agents and employees, and other persons or entities performing portions of the Work for or on behalf of the **Contractor** or any of its subcontractors. The **Contractor** shall be responsible to see that the finished Work complies accurately with all of the Contract Documents and all approved Submittals.

4.3.2. The **Contractor** shall at all times keep on the site a competent resident superintendent, properly licensed, for the entire Work and a competent foreman for each specialty trade. The superintendent shall not be assigned or replaced without written notice to the **Official**. If the **Official** objects to the **Contractor's** superintendent, whether initially or otherwise, the **Contractor** shall submit a replacement superintendent at no increase in Contract Price or Contract Time. The superintendent shall be the **Contractor's** representative at the site and have authority act on his behalf.

4.3.3. The **Contractor's** project superintendent and similar authorized representatives of any Subcontractor, Supplier or other person or organization shall attend all meetings, as requested by the **Official** or the **Architect** at no increase Contract Price.

4.3.4. The **Contractor** shall, upon written request of the **Official**, remove from **City** premises and replace all individuals in the **Contractor's** employ whom the **Official** determines to be disorderly, careless or incompetent or to be employed in violation of the terms of the Contract Documents.

4.4 Personnel, Materials and Equipment:

4.4.1 The **Contractor** shall provide competent, properly licensed, suitably qualified and reliable personnel to survey and lay out the Work and furnish and perform the Work as required by the Contract Documents. The **Contractor** shall at all times enforce strict discipline and maintain good order at the site.

4.4.2. Unless otherwise provided in the Contract Documents, the **Contractor** shall furnish, pay for and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water (including water for testing, flushing, and construction), sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.

4.4.3. All materials and equipment shall be of good quality and new, unless otherwise allowed, and the **Contractor** shall furnish satisfactory evidence (including reports of required tests) as to their kind and quality. Materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned following the manufacturer's and Suppliers instructions, unless otherwise provided in the Contract Documents. All materials and equipment shall be properly protected against damage throughout the furnishing and performance of the Work so that they remain of good quality and in the as-new condition. For each item, the **Contractor** shall furnish complete information as to preventive maintenance and operating requirements, parts lists in sufficient detail to facilitate ordering replacements, and any applicable special condition. Should the manner or method of installation, specified performance or test results be contrary to the manufacturer's recommendations, the **Contractor** shall promptly notify the **Architect** in writing of that conflict before proceeding with that Work; otherwise, he shall be deemed to have certified that Specifications will be met by the materials or equipment.

4.5 Wage Rates:

4.5.1. The rate per hour of the wages to be paid to mechanics and apprentices, teamster, chauffeurs, and laborers in the Work to be performed under this Contract shall be not less than the rate of wages in the schedule entitled "Schedule of Prevailing Wage Rates," as determined by the Department of Labor and Workforce Development of the Commonwealth of Massachusetts. This schedule shall continue to be the minimum rate of wages for said employees during the life of this Contract. The **Contractor** shall keep posted on the site of the Work a legible copy of said schedule of Minimum Wage Rate and Health and Welfare Fund and Pension Fund Contributions. Apprentices employed pursuant to this determination of wage rates must be registered and approved by the State Apprenticeship Council. Wherever rates for journeymen or apprentices are not listed, and if any other labor is not included in this list, the **Contractor** shall insert the rates of all those employed on the Work.

4.5.2. The **Contractor** shall pay to any reserve police officers employed by him, if any, the prevailing wage rate paid regular City of Newton police officers. Such police officers shall be covered by Worker's Compensation Insurance and Employer's Liability Insurance by the **Contractor**.

4.5.3. The **Contractor** shall keep on file at the site the wage rates and classifications of all labor employed in the work in order that they may be available for inspection by the **Official** or the **Architect**.

4.6 Working Hours:

4.6.1. No laborer, workman, mechanic, foreman, or inspector working within the Commonwealth in the employ of the **Contractor**, Subcontractor, or others shall be required or permitted to work more than 8 hours in any one day, or more than 48 hours in any one week, or more than 6 days in any one week, except in cases of emergency.

4.6.2. Unless otherwise required under the Contract Documents, or directed in writing by the **Official**, all Work shall be performed during the regular working hours. However, if the **Contractor** desires to carry on the work outside of regular working hours or on Saturdays, Sundays, federal legal holidays, or City recognized holidays, he may submit application to the **Official** no less than 48 hours in advance to date and time of such work. The Contractor shall allow ample time to enable satisfactory arrangements to be made for inspecting work in progress and shall bear all costs with respect thereto, including the cost of the **City's Clerk of the Works**. Any approval by the **Official** of the **Contractor's** request for carrying out Work outside of regular working hours, overtime or shift Work, or any schedule acceleration measures will not be grounds for any increase in Contract Price or an extension in Contract Time. The Contractor shall also be aware of the time restrictions imposed on construction activities by the City's Noise Ordinance, Sec. 20-13 of the City of Newton Revised Ordinances, and shall apply for permits for exemptions when work will exceed the time restrictions.

4.7 Equal Employment Opportunity:

4.7.1. The **Contractor** shall assume, and shall require each Subcontractor to assume, the obligation to take whatever affirmative actions are necessary to ensure that employees and applicants for employment under this Contract, are treated equally irrespective of race, color, religious creed, national origin, sex, gender identity, sexual orientation, age or ancestry. The term "treated" shall mean and include without limitation the following: recruited, whether by advertising or other means; compensated, whether in the form of rates of pay or otherwise; selected for training including apprenticeship; promoted; upgraded; demoted; downgraded; transferred; laid-off; and terminated.

4.7.2. Neither the **Contractor** nor any Subcontractor shall discriminate against any employee or applicant for employment because of race, color, religious creed, national origin, sex, gender identity, sexual orientation, age, or ancestry.

4.7.3. The **Contractor** and all Subcontractors shall carry out the requirements pertaining to equal employment with the diligence that they apply to any other part of the Contract.

4.8 Lodging, Boarding, and Trading of Employees:

4.8.1. Every employee in the Work shall be allowed to lodge, board and trade where and with whom he/she elects and the **Contractor** shall not directly or indirectly require as a condition of employment in the Work that an employee shall lodge, board, or trade at a particular place or with a particular person.

4.9 Preference in Employment:

4.9.1. The **Contractor** and each Subcontractor shall give preference in the employment of mechanics and apprentices, teamsters, chauffeurs and laborers, first to the citizens of the Commonwealth who have been residents of the Commonwealth for at least six months at the commencement of their employment, and who are veterans as defined in M.G.L. Chapter 4, Section 7, clause 43, and who are qualified to perform the Work to which the employment relates; and secondly, to citizens on the Commonwealth generally, and if they cannot be obtained in sufficient numbers, then to citizens of the United States; and shall give preference to veterans and citizens who are residents of the City of Newton.

4.10 Substitutes or "Or-Equal" Items:

4.10.1. Whenever materials or equipment are described in the Contract Documents by using a brand name, make, manufacturer, supplier or specification, the naming or specification of the item is intended to denote the essential characteristics of the item desired pursuant to M.G.L. Chapter 30, Section 39M(b). Unless words indicating that no substitution is permitted are used, items from prospective suppliers may be accepted by the **Official** if sufficient information is submitted by the **Contractor** in his written application for the substitution to allow the **Official** to determine whether the material or equipment proposed (1) will perform at least equally well the functions and achieve the results called for by the general design concept, (2) is at least of equal materials of construction, quality and necessary essential design features, (3) is suited to the same use as that named or specified, (4) conforms substantially to the desired detailed requirements for that item, including but not limited to, durability, strength, appearance, aesthetics (where aesthetics are essential), safety, service, useful life, reliability, economy of operation and ease of maintenance, (5) evidences a proven record of performance, (6) will yield net savings to the **City**, and (7) will not impact the Construction Progress Schedule and will not extend any Contract Time(s).

4.10.2. Each application for a substitution shall certify that the proposed substitute will meet each of the first six (6) criteria itemized in paragraph 4.10.1, and that the evaluation and acceptance by the **Official** of the proposed substitute will not prejudice completion of the Work within the limits of the Construction Progress Schedule and the Contract Time. Each application shall certify whether or not acceptance of the substitute will require a change in any of the Work or any of the means, methods, techniques, sequences or procedures applicable to the Work indicated in or required by the Contract Documents, or in work performed by the **City** or others, and whether or not incorporation or use of the substitute is subject to payment of any license fee or royalty. All variations of the substitute from the item named or specified shall be identified (operation, materials, or construction finish, thickness or gauge of material, dimensions, loads, tolerances, deleted/added features, etc.), and information regarding available maintenance, repair and replacement service will be indicated.

4.10.3. The application shall contain an itemized estimate of all costs that will result directly or indirectly from evaluation and acceptance of the proposed substitute, including, but not limited to costs and delays of redesign, or claims of other contractors affected by the substitute, and changes in operating, maintenance, repair, replacement or spare part costs. The **Contractor** is solely responsible for verifying that substitutes are in accordance with the Contract Documents, and that dimensions, arrangement, design and construction details, and all other features of substitutes are suited to the specified purpose. The **Contractor** assumes full responsibility for the time and cost required to make substitute items conform to the requirements of the Contract Documents, or to implement any changes in the Work or in other work which may be required because of or to accommodate the substitute, or both.

4.10.4. If a substitute item differs from that named or specified, and that difference was not expressly identified in the **Contractor's** written application, or it results in changes to the Work or in the function or general design concept, the **City** has authority to require removal and replacement of the substitute.

4.10.5. The **Official's** decision regarding a substitution will be made within the time allowed in M.G.L. Chapter 30, Section 39P. A proposed substitute will be accepted as equivalent or "or-equal" to that named or specified if it meets the substitution criteria and if the deduction proposed by the Contractor reflects the net difference in cost, provided, however, that one hundred percent (100%) of the net savings benefits the **City**. No substitute will be utilized, ordered, or installed without the **Official's** prior written acceptance. Whether or not the **Official** accepts a proposed substitute, the **Contractor** shall reimburse the **City** for any associated extra costs of the **City** resulting from the substitute, including but not limited to, related charges of the **Architect** made necessary by the evaluation and acceptance (or rejection) of each proposed substitute.

4.10.6. An item will be considered equal to the item so named or described if (1) it is at least equal in quality, durability, appearance, strength and design: (2) it will perform at least equally well the function imposed by the general design for the Work; and (3) if conforms substantially, even with deviations, to the detailed requirements for the item in the Specifications, pursuant to M.G.L. Chapter 30, Section 39M (b).

4.11 Schedule Submittals:

4.11.1. Within fifteen (15) days after execution of the Contract, the **Contractor** shall submit to the **Architect** "revision 0" of the Schedule of Values. No line item on the Schedule of Values shall exceed $25,000.00. In addition, in fulfillment of the **Contractor's** obligations to commence, prosecute and complete the Work within the Contract Time, the **Contractor** shall submit with the first Application for Payment "Revision 0" of the **Contractor's** Progress Schedule and the **Contractor's** schedule of Shop Drawing submissions.

4.11.2. The **Contractor** shall correct, adjust or modify those schedules returned as "Revise and Resubmit", and shall resubmit Revision "0" schedules within the times specified. The **Contractor's** Revision "0" Progress Schedule shall be utilized to the fullest extent when making proposals or claims for changes in Contract Time or Contract Price.

4.11.3. The **Contractor** shall keep the **Official** informed of progress of the Work by submitting monthly Progress Schedules, which shall stay current with the **Contractor's** approach to Work remaining, be employed when reporting on progress or schedule recovery actions and facilitate the evaluation of payments. The **Contractor** shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with the **City**. No Work shall be delayed or postponed pending resolution of any disputes or disagreements. The **Contractor** shall exercise reasonable precautions, efforts and measures to avoid or mitigate situations that would cause delays.

4.11.4. After checking and verifying that an issue of revision of the Progress Schedule complies with the applicable requirements and procedures in the Contract, the **Contractor** shall, within the times specified, submit to the **Architect** four (4) copies, or in the alternative, five (5) copies for use by the **Official** and the **Architect** plus additional copies as required by the **Contractor** of that Submittal bearing the **Contractor's** stamp of approval as representation to the **City** that the **Contractor** has determined or verified all data on that Progress Schedule, and that the **Contractor** and the Subcontractors and Suppliers have reviewed and coordinated the sequences in that Progress Schedule with the requirements of the Work.

4.11.5. Early Dates in the Progress Schedules shall be based on proceeding with all or part of the Work exactly on the date when the Contract Time for the Work, or designated part of the Work, commences to run. Late Dates shall be based on completing all or part of the Work exactly on the corresponding Contract Time, unless the **Contractor** anticipates early completion of all or part of the Work (subject to those provisions governing use of Contract Float by the **City**). Where sequences of Work are indicated in or are required by the Contract Documents, the Progress Schedule shall disclose in detail the **Contractor's** approach to conforming with those sequences of Work.

4.11.6. Progress Schedule Submittals are intended to show the overall priority and sequencing of Activities with which the **Contractor** intends to accomplish the Work or Work remaining to comply with the Contract Times and those sequences of Work indicated in or required by the Contract Documents; show how the **Contractor** anticipates foreseeable events or site conditions that may in any manner affect the cost, progress, schedule, performance, and furnishing of the Work; reflect the means, methods, techniques, sequences, and procedures applicable to the Work chosen by the **Contractor**; and accurately record how completed Work was performed as to sequencing and timing.

4.11.7. The **Official's** and **Architect's** review of a Progress Schedule may result in comments relating to: conformance with the Contract Time(s) and those sequences of Work indicated in or required by the Contract Documents, selection of Milestones and recording of Milestone Times, and conformance with the Technical Specifications and any other information given in the Contract

Documents which may have a significant bearing on the use of the Progress Schedule to resolve issues affecting Contract Price or Contract Time. However, whether or not any objections are noted, no such review or objections shall be effective to change the duties or responsibilities of the **City** or **Architect** or to impose on either of them a responsibility for the accuracy of any such Progress Schedule details, the correctness of all of which shall remain the sole responsibility of the **Contractor**.

4.12 Project Photographs:

4.12.1. Before the **Contractor** commences any work at the site, and on the first work day of each month thereafter until Substantial Completion of the Work, the **Contractor** shall, at his expense, have exterior and interior digital photographs with disc storage taken by a competent commercial photographer from different viewpoints, as directed by the **Official** or **Architect**. The **Official** and **Architect** shall have the right to increase or decrease the number of photographs required at each period, maintaining an overall average number of exposures per period.

4.12.2. All prints of digital photographs shall be "8 x 10" size. The prints shall bear the date and time of day of the exposure, name of project, the specific location, description of view, and name and address of the photographer. The digital photo disc and one glossy print shall be submitted to the **Official** and one glossy print of each shall be delivered to the **Architect**, all within fifteen (15) days after the exposures are made.

4.12.3. If the **Contractor** fails to provide the photographs as required by the Contract Documents, the **City** shall be entitled to a corresponding cost set-off against the **Contractor's** next Application for Payment, or may choose to have the photograph taken by another photographer, and correspondingly charge those associated costs to the **Contractor**.

4.13 Shop Drawing, Samples and Printed Data:

4.13.1. The **Contractor** shall submit to the **Architect** within fifteen (15) days after the Date for Commencement of Contract Time, his Shop Drawing Log and completed Shop Drawing Submission Schedule, in the form specified by the **Official**, and shall update, and resubmit this Schedule each month to the **Architect** in accordance with the requirements of the Contract Documents.

4.13.2. Submissions of Shop Drawings, samples and printed data shall state the Project name, Specifications Sections, and paragraph numbers which apply to the items submitted. The **Contractor** shall submit Shop Drawings, samples, and printed data in sufficient time to permit checking, resubmission, rechecking, approval and subsequent fabrication and delivery. Failure on the **Contractor's** part to do so will not justify an increase in Contract Time.

4.13.3. Submittals made by the **Contractor** which are not required by the Contract Documents may be returned without action, in the **Architect's** sole discretion.

4.13.4. The **Architect's** review and approval of a technical Submittal will be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents. The **Architect's** review and approval of a technical Submittal shall not extend to means, methods, techniques, sequences or procedures applicable to the Work except where a specific means, method, technique, sequence or procedure is indicated in or required by the Contract Documents or to safety precautions or programs related to safety, nor shall the **Architect's** review impose on the **Architect** any responsibility for the accuracy of engineering design(s) furnished by the **Contractor**, including but not limited to dimensions, quantities, performance of equipment and systems, or any other similar matters, the correctness of all of which shall remain the sole responsibility of the **Contractor**. Approval of a separate item, or partial Submittal, shall not mean approval of the item's assembly or Submittals not yet reviewed.

4.13.5. Shop Drawings or other technical Submittals consisting of drawings and specifications involving architecture, professional engineering, land surveying or landscape architecture, shall only be prepared by a registrant within the specific discipline involved.

4.13.6. The **Architect** shall be entitled to rely upon the accuracy or completeness of any designs, calculations or certifications made by licensed or certified professionals accompanying a specific Submittal, whether or not that stamp or written certification is required by the Contract Documents.

4.14 Shop Drawing Submittals:

4.14.1 After complying with the requirements in paragraph 4.14.4 and 4.14.5 and all applicable procedures in the Specifications, the **Contractor** shall, in accordance with the Progress Schedule, submit to the **Architect** four (4) copies, or in the alternative, five (5) copies for use by the **Official** and the **Architect** plus additional copies as required by the **Contractor** of all Shop Drawings, which shall bear a stamp or specific written indication (called "written approval") that the **Contractor** has satisfied his responsibilities under the Contract Documents with respect to the review of the submission. Shop Drawings without the

Contractor's written approval will be returned for resubmission. All submissions shall be identified as the **Architect** may require.

4.14.2. The **Contractor** shall also submit to the **Architect** with such diligence so as to not delay the Work, all other technical Submittals such as samples, test results, test procedures, etc. that are required by the Contract Documents. All samples shall have been checked and be accompanied by a specific written indication that the **Contractor** has satisfied his responsibilities with respect to the review of the submission, and by a certificate guaranteeing that the item complies with the Contract Documents. Additional provisions governing the submission of other technical Submittals are given in the technical Specifications.

4.14.3. At the time of each submission, the **Contractor** shall give the **Architect** specific written notice of each variation of the Submittal from the requirements of the Contract Documents and in addition, shall cause a specific notation of each variation to be made on each Shop Drawing, sample or other technical Submittal submitted for review and approval.

4.14.4. The **Contractor** shall check, stamp with his approval, and submit to the **Architect**, until approved by the **Architect**, with such promptness as to cause no delay in the Work, all Shop Drawings and all other Submittals required by the Contract Documents. At the time of submission, the **Contractor** shall inform the **Architect** in writing of any deviation in the Shop Drawings from the requirements of the Contract Documents, or on resubmitted Shop Drawings, to revisions, other than the corrections requested by the Architect on previous submissions.

4.14.5. Before each submission, the **Contractor** shall determine and verify all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers and other similar data as to correctness and completeness, and he shall have reviewed and coordinated each technical Submittal with other technical Submittals and with the requirements of the Contract Documents. Technical Submittals of a Subcontractor or Supplier such as the location, dimensions, fit, completeness, consistency, integration, etc. shall be coordinated with those of other Subcontractors or Suppliers, and be so represented in the **Contractor's** written approval before submission to the **Architect**.

4.14.6. Shop Drawings that are received from the **Contractor** will be the only Shop Drawings considered for review by the **Architect**. By approving and submitting Shop Drawings, the **Contractor** thereby represents that he has determined and verified all field measurements, field construction criteria, materials, catalogue numbers and other similar data, and that he has checked and coordinated each Shop Drawing with the requirements of the work and of the Contract Documents. Shop Drawings not so checked and approved will be returned to the **Contractor** without being examined by the **Architect**.

4.14.7. A technical Submittal will be returned within fifteen (15) days, or later if Total Float is available in the Progress Schedule, as either "Approved", "Approved as Noted", "Revise and Resubmit" or an appropriate combination. If a Submittal cannot be returned within that period, the **Architect** shall within fifteen (15) days after receipt, give written notice of the date by which that Submittal will be returned. The **Contractor** shall revise and correct Submittals returned as "Correct and Resubmit", and resubmit them to the **Architect** for his review and return - directing specific attention in writing to any revisions other than the corrections called for by the **Architect** on previous Submittals.

4.14.8. The Shop Drawings shall be clear, complete, and accurate, and shall give all information necessary or requested in individual Sections of the Specifications, and also show adjoining work and details of connections thereto.

4.14.9. Shop Drawings shall be submitted in a proper sequence reflecting the logical sequence and relative priority of the various phases of Work to ensure the preparation of a properly coordinated set of Shop Drawings.

4.14.10. The **Contractor** shall, at his expense, prepare and submit composite Shop Drawings showing the work under all affected trades, upon request of the **Architect**, with no change in Contract Price or Contract Time.

4.14.11. The **Architect** will review and return Shop Drawings with reasonable promptness after his receipt of same, but only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents. The **Architect's** review and approval of Shop Drawings will not extend to the accuracy of other matters that may be contained in the Submittals, including but not limited to such matters as dimensions, quantities, performance of equipment and systems designed by the **Contractor**, engineering design(s) furnished by the **Contractor**, the **Contractor's** means, methods, techniques, sequences or procedures applicable to the Work except where a specific mean, method, technique, sequence, or procedure is indicated in or required by the Contract Documents or to safety precautions or programs related to safety, the correctness of which shall remain the sole responsibility of the **Contractor**. Approval of a separate item, or partial Submittal, shall not mean approval of the item's assembly or Submittals not yet received.

4.14.12. The **Architect** will make comments, if any are required, directly on the reproducible transparency and return the transparency to the **Contractor**. The **Contractor** shall incorporate the **Architect's** corrections onto the original drawings and resubmit a new reproducible transparency and two prints thereof to the **Architect** for his approval. This procedure shall be

repeated until all corrections are made to the satisfaction of the **Architect**.

4.14.13. No review, return or approval of Submittals shall relieve the **Contractor** of responsibility for any variation from the requirements of the Contract Documents unless the **Contractor** has in writing called attention to each variation at the time of submission and the **Official** has given written approval of each such variation by a specific written notation incorporated in or accompanying the approval or returned Submittal. No review, return or approval of Submittals shall relieve the **Contractor** from responsibility for errors or omissions in the Submittals or for having complied with the provisions of this Article 4.

4.14.14 Where a Shop Drawing, sample or other technical Submittal is required by the technical Specifications, any related Work performed by the **Contractor** prior to the **Official's** approval of the pertinent Submittal will be at the sole expense and responsibility of the **Contractor**.

4.14.15 Submittals are not Contract Documents. Technical Submittals are intended to demonstrate how the **Contractor** intends to conform to the design concept of the Project and the information given in the Contract Documents.

4.15 Samples:

4.15.1. The **Contractor** shall submit for the written approval of the **Architect** all samples required in the individual Sections of the Specifications. Samples shall be submitted in a proper sequence reflecting the logical sequence and relative priority of the various phases of the Work. Unless otherwise specified in the individual Specification sections, three (3) specimens of each sample shall be submitted.

4.15.2. Samples shall be of sufficient size to permit proper evaluation of material. Where variations in color or other characteristics are to be expected, samples showing the minimum range of variation shall be submitted. Materials exceeding the range of variation of the approved samples will not be approved on the Work.

4.15.3. Samples which can be conveniently mailed shall be sent directly to the **Architect**, accompanied by a transmittal notice stating the name of the Project, Specifications Section and Article number to which the sample refers and description of the item being submitted. The **Contractor** shall mail a copy of the transmittal notice to the **Official**.

4.15.4. All other samples shall be delivered at the field office of the **Clerk of the Works**, with sample identification tags attached and properly filled in. A transmittal notice of listing the delivered samples shall be submitted to the **Architect** and to the **Official** by the **Contractor**.

4.15.5. Costs associated with the delivery of samples shall be paid by the **Contractor**.

4.15.6. The **Architect** will with reasonable promptness review and give written approval of samples but only for conformance with the design concept of the Project and with the information given in the Contract Documents.

4.16 Printed Data:

4.16.1 The **Contractor** shall submit to the **Architect** six (6) copies of printed data as required in the Specifications, or if an electronic copy is available, one (1) hard copy and one (1) electronic copy. All such printed data shall be specific and identification of material or equipment submitted shall be clearly made in ink.

4.16.2 The **Contractor** shall resubmit six (6) copies of such data, or if an electronic copy is available, one (1) hard copy and one (10 electronic copy, until approved and, after approval, shall provide and distribute such number of copies as required for the **Contractor's** use.

4.17 Responsibilities for Repeat Submittals:

4.17.1 All costs incurred by the **City** and the **Architect** made necessary by the review of a particular Submittal after the second time review shall be borne by the **Contractor** without any increase in Contract Price or Contract Time**,** and shall either be reimbursed by the **Contractor** to the **City**, shall be deducted by the **City** from amounts which may become due to the **Contractor,** or will result in a credit Change Order to the City.

4.17.2 All time consumed by the resubmission and re-reviews of a particular Submittal shall not meet the requirements for increases in Contract Time or Contract Price.

4.18 Operating and Maintenance Instructions and Stock Items:

4.18.1 The **Contractor** shall collect all operating, service and maintenance instructions of all mechanical, electrical and manually operated equipment required by them under the Contract Documents, bind them into four (4) complete sets properly formatted and indexed, and submit them to the **Architect** when the Work has reached 90% completion. Failure by the **Contractor** to provide these instructions will prevent subsequent Applications for payment from being approved.

4.18.2 Four (4) copies of all operating and maintenance instructions shall be submitted. These instructions shall be arranged in loose-leaf notebooks of not more than 2" thickness and organized by trade. Each notebook shall be indexed and sorted by building feature or piece of equipment to make all information easily accessible. Each equipment section shall be prefaced by a summary sheet including an equipment description, manufacturer, manufacturer's representative, model number and all nameplate information, and location within the building.

4.18.3 Upon the date of Substantial Completion, the **Contractor** shall provide verbal instructions and demonstrations to the **Official** and other **City** representatives at the site concerning maintenance of all building features and equipment.

4.18.4 Upon the date of Substantial Completion, all maintenance stock items required to be supplied under this Contract shall be delivered to the job site by the **Contractor**. All maintenance stock shall be delivered to the job site in unopened containers and stored properly in accordance with manufacturer's instructions. The **Contractor** shall provide the **Official** with storage instructions for all spare maintenance stock supplied.

4.19 Record Documents:

4.19.1 From the sets of Contract Documents furnished by the **Official**, the **Contractor** shall reserve one set for record purposes. From this set, the **Contractor** shall detach and furnish the drawings of their Work for their record purposes at no charge to the mechanical and electrical Subcontractors.

4.19.2 The **Contractor** shall maintain at the site one (1) record copy of all Drawings, Specifications, Addenda, Change Orders, Change Authorizations, field orders, test records, construction photos, and written interpretations/clarifications, in good order and annotated in a neat and legible manner using a contrasting, reproducible color to show all revisions made and dimensions noted during execution of the Work. These record documents together with a properly annotated record copy of all approved Submittals shall be available to the **Architect**, the **Official** and the **Clerk of the Works** for reference. Upon completion of the Work, these record documents and annotated Submittals shall be delivered to the **City**.

4.19.3 Upon Substantial Completion, the **Contractor** shall return the complete set of record documents to the **Architect**. The **Architect** will review these documents and return them to the **Contractor** with any necessary comments. The **Contractor** shall revise the same with no change in Contract Price until satisfactory to the **Architect**, as evidenced by his approval endorsed thereon.

4.19.4 Upon receipt of the **Architect's** approval, the **Contractor** shall, at no increase in Contract Price, make deliver to the City one (1) hard copy of all record drawings and one (1) CD with both pdfs and AUTO CAD version acceptable to the **Official** of all record drawings. The **Contractor** shall ensure that all as-built information shown on the record drawings is transferred onto said transparencies. The drafting shall be done by experienced drafters and shall match the original drawings.

4.19.5 The **Contractor**, shall also, at his expense, prepare one (1) hard copy of all record drawings and one (1) CD with both pdfs and AUTO CAD version acceptable to the **Official**, and submit the same to the **Architect** before the **Contractor** shall be entitled to Final Payment.

4.19.6 Each week, the **Contractor** shall submit to the **Architect** and **Clerk of the Works** daily reports recording: the labor work force and equipment utilized by the **Contractor** and Subcontractors; materials and equipment received; visits by Suppliers and others; specialty trade Work performed for each significant aspect of in-progress or completed Work within each major area of Work; the status of the Work at the Site; and other similar pertinent information.

4.20 Instruction Relating to Existing Conditions:

4.20.1 The **Contractor** represents that he has read the Contract Documents and is fully informed in regard to all provisions thereof, including without limitation, the drawings, Contract Time and the provisions for liquidated damages, and that he has visited the premises described in the Contract Documents and made his own examination of the place where the Work is to be performed and of all conditions pertaining to the Work and has made his own estimates. The **Contractor** agrees that he shall not hold the **City**, its agents or employees responsible for or bound by any schedule, time period, estimate, sounding, boring, or any plan of any thereof and shall assume all liability for the prosecution of the Work and shall bear all losses resulting to him in such prosecution of the Work. No claim for an increase in Contract Price or other damages or any other claim other than for an extension in Contract Time

shall be made or asserted against the **City** by reason of any delays unless specifically allowed by the Contract Documents or required by law. The **Contractor** shall not be entitled to an increase in the Contract Price or to compensation of any kind from the **City**, including extended site and home office overhead, for direct, indirect, consequential impact or other costs, expenses or damages, including but not limited to costs of acceleration or inefficiency arising because of delay, disruption or interference from any cause whatsoever. This provision shall not preclude recovery of damages by the **Contractor** for hindrances or delay due solely to fraud or bad faith on the part of the **City** or its agents. Otherwise, the **Contractor** shall be entitled only to a non-compensable extension to the Contract Time as the sole and exclusive remedy for such resulting delay, in accordance with and to the extent provided above.

4.20.2 Pursuant to M.G.L. Chapter 30, Section 39N, if, during the progress of the Work, the **Contractor** or the **City** 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 **City** may request an equitable adjustment in the Contract Price applying to Work affected by the differing site condition. 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 **City** 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 or 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 **City** shall make an equitable adjustment in the Contract Price and the Contract shall be modified in writing accordingly.

4.21 Removal of Existing Work:

4.21.1 The following requirements shall apply to existing conditions which are located within the Limit of Contract Lines indicated on the Drawings:

4.21.2 On and above existing grades, unless designated in the Contract Documents to be reused, remain, or be altered, all existing items shall become the property of the **Contractor** and shall be completely removed from the site by the **Contractor**, at no change in Contract Price.

4.21.3 Below existing grades, unless designated in the Contract Documents to remain, be reused, be altered, or to be paid for on a unit price basis, as stipulated in the Section entitled "Unit Prices", all subsurface materials shall be excavated to the lines specified in the Contract Documents and completely removed from the site by the **Contractor**, at no change in the Contract Price.

4.22 Marks and Lines:

4.22.1 The **Contractor** shall furnish, at his expense, the services of a Land Surveyor registered to practice in the Commonwealth of Massachusetts, who shall, for the **Contractor**, establish and maintain on-site permanent bench marks, and determine from them the various levels of work, and place the levels, and the lines of the buildings, on substantial batter boards and stakes, as required for the proper execution of the Work.

4.22.2 The **Contractor** shall employ on a full time basis a person with sufficient engineering background and experience in the type of work required hereunder who shall, for the **Contractor**, do other engineering work which shall include, without limitation, leveling, checking, and verifying wall and main partition lines.

4.22.3 The **Contractor** shall be fully responsible for the accuracy of all lines and levels established by or for him. The **Contractor** shall furnish to the **Official** a certificate signed by said Land Surveyor, registered in the Commonwealth of Massachusetts, certifying that the location of the building and the principal lines, levels and dimensions of the building are accurately established in accordance with the Contract Drawings.

4.23 Materials, Inspection, Disposition and Suitable Storage:

4.23.1 Unless otherwise stated in the Specifications, or noted on the Drawings, all materials and equipment shall be new and in manufacturer's original containers, clearly marked as to contents. Upon delivery of materials, copies of the delivery receipts shall be given to the **Clerk of the Works**.

4.23.2 The **Contractor** shall allow the **Clerk of the Works** and/or any other designated representative of the **Official** or the **Architect** to examine materials, and he shall furnish labor and equipment to assist in such examination with no change in Contract Price.

4.23.3 The **Contractor** shall store all delivered materials in proper locations which will not interfere with the Work. If any stored materials are rejected, a notice of rejection will be given to the **Contractor** by the **Official** or the **Architect** in writing. Upon receipt of a rejection notice, the **Contractor** shall, within twenty-four (24) hours thereafter, proceed to remove all such rejected materials from the site, and completely remove such materials within five (5) working days.

4.23.4 Should the **Contractor** or any Subcontractor install, or permit the installation of, any materials which have not been inspected prior to installation, the **Contractor** shall be held fully responsible therefor, and if such installed materials are rejected after inspection by the **Architect** or **Official**, the **Contractor** shall, take down all portions of the Work containing rejected materials, remove all such materials from the site, and replace the rejected materials accordingly at no increase in Contract Price.

4.23.5 The **Contractor** shall provide for the protection and orderly keeping of materials, and shall provide sufficient heat and cooling to prevent damage to said materials.

4.23.6 No determination by the **Official** or the **Architect** regarding materials and/or equipment which are not incorporated in the Work, but are suitably stored on the site, or at some other location approved in writing by the **Official**, for the purposes defined under Article 8, whether or not payment by the **City** to the **Contractor** on behalf of all or any part of said materials and/or equipment has been made, shall relieve the Contractor of his obligation to bring the work to Final Completion, at no change in the Contract Price.

4.23.7 In no event shall materials and/or equipment be considered delivered and suitably stored at the site, or some other location approved in writing by the **Official**, for the purposes defined under Article 8 unless in the judgment of the **Official**, the materials and/or equipment are actually scheduled for prompt use, meet the requirements of the Contract Documents, and that the **Contractor** can and will, at his expense, adequately protect and insure the materials and/or equipment until they are incorporated in the Work. No payment will be made by the **City** for related storage charges, insurance and/or costs and expenses.

4.24 Cutting and Patching:

4.24.1 See Division 1, Section 017329 of Technical Specifications.

4.25 Existing Utilities:

4.25.1 If existing utility lines, which are indicated in the Contract Documents are damaged by the **Contractor** or any Subcontractor, including without limitation, cables, ducts, conduits and piping, they shall be immediately repaired, protected, and maintained in use until relocation of same has been completed, or shall be cut or capped or prepared for service connections, as the Contract Documents require, unless they are to be abandoned in accordance with the Contract Documents.

4.25.2 The **Contractor** shall be responsible for locating all Underground Utilities in advance of excavating whether shown in the Contract Documents or indicated by exposed components; scheduling excavation and uncovering in advance, unless it prejudices Work already uncovered; shoring, blocking, and protecting all Underground Utilities; whether shown or indicated or newly-discovered; repairing any damage done to Underground Utilities to the satisfaction of the **Official** or their owner(s); promptly notifying the **Official** and the **Architect** of any newly discovered Underground Utility; and the safety and protection of, and repairing of any damage done to, any affected Work. The **Contractor** shall not, except in an emergency, make an excavation unless written notice of the proposed excavation is given to the owner of any affected Underground Utilities at least two (2) business days before such excavation is to be made.

4.25.3 All costs involved and time required to perform the responsibilities in paragraph 4.25.2 shall be deemed as within the Contract Price and the **Contractor's** schedule for performing the Work within the Contract Time.

4.25.4 The **Contractor** shall notify the **Official** in writing, not less than three (3) business days in advance of the proposed time for shutting down or interrupting of any utilities, services, or facilities which may affect the operation of other buildings, services or facilities of the **City** or the **City's** other contractors. In no case shall any shutdown or interruption of any utilities, services, or facilities be made without the prior written approval by the **Official**. Unless otherwise authorized in writing by the **Official**, the Contractor shall so schedule and coordinate his work that such interruption will occur on weekends, holidays, or before or after the normal working day of the **City's** Facilities. All costs and expenses, including outage costs and back charge costs, shall be borne by the **Contractor.**

4.26 Maintenance of Site:

4.26.1 At all times prior to Final Completion, the **Contractor** shall keep the site free from accumulation of waste materials or

rubbish.

4.26.2 The **Contractor** shall be responsible for the protection of all completed Work, and for repairing, replacing or cleaning any such Work which has been damaged by other trades or by any other cause, so that all Work is in perfect condition in accordance with the Contract Documents at the time of Substantial Completion.

4.26.3 At the end of each work week, the **Contractor** shall thoroughly clean the site of all rubbish and debris of any nature, and remove such from the site. The **Contractor** shall thoroughly clean the entire Project and site. Specific cleaning requirements, prior to final inspection, shall be as set forth in Division 1 of the Technical Specifications.

4.26.4 Immediately prior to final inspection by the **Architect** and the **Official**, the **Contractor** shall thoroughly clean the entire Project and site. Specific cleaning requirements, prior to final inspection, shall be as set forth in Division 1 of the Technical Specifications.

4.26.5 The **Contractor** shall confine construction equipment, the storage of materials and equipment, and the operations of workers to those lands, rights-of-way and easements identified in and permitted by the Contract Documents, and shall not unreasonably encumber the premises with construction equipment, materials or equipment. The **Contractor** shall assume full responsibility for any damage to those lands including properties and fixtures, rights-of-way and easements or to the owners or occupants of any adjacent lands or access, resulting from execution of the Work. The **Contractor** shall defend, indemnify and hold harmless the **Owner** and **Architect** from and against all claims arising out of or resulting from any damage to any such land, or to any adjacent lands, including loss of use.

4.26.6 The **Contractor** shall keep the premises free accumulations of waste materials, rubbish and other debris. Upon the completion of the Work, the **Contractor** shall remove waste and surplus materials, rubbish, debris, tools and construction equipment, and shall leave the site clean and ready for occupancy by the **City**. The **Contractor** shall restore to original condition all property not designated for alteration by the Contract Documents including, but not limited to walks, roadways, paved or landscaped areas used during prosecution of the Work. If the **Contractor** fails to comply with this requirement, the **City** may do so, in which case the **Contractor** shall reimburse the **City** for all costs incurred by the **City**.

4.26.7 The **Contractor** shall not load or permit any part or any structure to be loaded in any manner that will endanger the structure. The **Contractor** shall not subject any part of the Work or adjacent property to stresses or pressures that will damage and endanger the Work or adjacent property, or both.

4.27 Inspection and Testing of the Work:

4.27.1 All materials, equipment and workmanship shall be subject to inspection and testing by the **Official**, the **Architect** and their authorized representatives, for conformance with the requirements of the Contract Documents.

4.27.2 If the Contract Documents, laws, codes, ordinances, rules, regulations, or orders of any public authority having jurisdiction require any Work to be inspected, tested or approved, the **Contractor** shall give the **Architect, Clerk of the Works,** and the **Official** timely written notice of its readiness and of the date arranged so the **Architect, Clerk of the Works,** and the **Official** may observe such inspection, testing or approval. The **Contractor** shall bear all costs of such inspections, tests and approvals unless otherwise provided in the Contract Documents.

4.27.3 Inspection and testing by the **City**, the **Architect**, or their representative, or by any other person, shall in no event reduce or remove the **Contractor's** responsibility for compliance with the full intent and requirements of the Contract Documents.

4.27.4 The **Contractor** must anticipate any and all time required for the testing, inspection and approval of material before incorporation into the Work. No increases in Contract Price or Time will be permitted for losses or delays attributable thereto.

4.27.5 After testing or inspection should any materials or portion of the Work be found *defective* and not conforming to the Contract Documents, such materials or portion of the Work shall be promptly removed, replaced and made to conform to the requirements of the Contract Documents by the **Contractor** at no increase in Contract Price or Contract Time.

4.27.6 Reasonable cost for travel, room and board, incurred by the **Official** or his authorized representative, for the inspection of materials required in the performance of the Work, which are fabricated outside the limits of the City of Newton will be deducted from amounts otherwise due or to become due to the **Contractor**.

4.27.7 If after Commencement of the Work, the **Official** or the **Architect** determines, in their sole discretion, that any of the Work requires special inspection, testing or approval, not otherwise provided for in the Contract Documents, the **Architect** may with the

approval of and upon the written order of the **Official**, instruct the **Contractor** in writing to order such special inspection, testing or approval. The **Contractor** shall give the **Official** and the **Architect** seventy-two (72) hours advance written notice of the time and place of such inspection, testing or approval. In the event that such special inspection or testing shows that the Work or part of the Work does not conform to the requirements of the regulations or orders of any public authority having jurisdiction, the **Contractor** shall pay all costs of such inspection, testing or approval, otherwise the **City** shall bear such costs.

4.27.8 Examinations of questioned Work may be ordered at any time and from time to time by the **Official** and/or the **Architect**, and if so ordered, the **Contractor** shall uncover the Work. If such Work is found to be in accordance with the Contract Documents, the **City** will pay the reasonable costs of examination and replacement. If such Work is found to be not in accordance with the Contract Documents, the **Contractor** shall pay all costs of examination, replacement, and all related testing.

4.28 Claims by the Contractor for Loss or Injury:

4.28.1 If the **Contractor** claims any loss or injury resulting to him from any act, omission, or neglect of the **City**, its agents or employees, the **Contractor** shall in strict compliance with all of the requirements of Article 15, and in any event no later than thirty (30) days after the loss or injury that gives rise to the claim, deliver to the **Official** a written statement of the loss or injury in the form of a clearly marked Notice of Claim. Under no circumstances will any reimbursement be made to the **Contractor** unless the **Contractor** shall have delivered the timely written Notice of Claim in accordance with the requirements of this paragraph and Article 15.

4.28.2 The **Contractor** shall have no right to recover damages for any claims or any loss or injury resulting from Work not being performed in conformance with the Contract Documents.

4.28.3 The **Contractor** shall bear all losses resulting from any cause both before Final Completion, and after Final Completion if the Work or any part of the Work fails to conform to the Contract Documents.

4.29 Responsibility for Labor, Material and Equipment Costs:

4.29.1 The **Contractor** shall pay and be exclusively responsible for all debts for labor and material contracted for by the **Contractor**, for the rental of any appliance or equipment hired by the **Contractor** and/or for any expense incurred on account of the Work.

4.30 Conflict of Interest:

4.30.1 The **Contractor's** attention is called to M.G.L. Chapter 268A the Conflict of Interest Law. The **Contractor** shall not act in collusion with any **City** officer, agent, employee or any other party, nor shall the **Contractor** make gifts regarding this Contract or any other matter in which the **City** has a direct and substantial interest.

4.31 Emergencies:

4.31.1 In emergencies affecting the safety or protection of persons or the Work or property at or adjacent to the site, the **Contractor**, without special instructions or authorization from the **Architect** or the **Official**, is obligated to act to prevent threatened damage, death, injury, or loss. The **Contractor** shall give the **Official** written notice within forty-eight (48) hours of any changes in the Work resulting from the action taken. If the **Official** concurs, the **Official** shall authorize the required changes in accordance with Articles 11 and 12, and, unless the emergency was due in whole or in part to the fault or negligence of the **Contractor**, correspondingly adjust the Contract Price or the Contract Time.

4.32 Miscellaneous Provisions:

4.32.1 The **Contractor** shall inspect Work already in-place to verify that it is in proper condition to receive dependent Work. The **Contractor** shall be responsible for all cutting and patching which may be necessary to complete the Work and to make its several parts fit together properly, whether or not that Work is expressly specified in the Contract Documents.

4.32.2 The **Contractor** shall initiate, maintain and supervise all weather precaution programs applicable to the Work. In the event of severe weather, the **Contractor** shall immediately inspect the Work and the site, and take all necessary actions to insure that public access and safety are maintained.

4.32.3 The **Contractor** shall perform Work and operate vehicles and equipment so as to cause the least practicable interference with traffic and without becoming a hazard to the public or interfering with any overhead utilities. When transporting materials, vehicles shall not be loaded beyond the capacity recommended by the manufacturer of the vehicle or set by Law. When crossing

curbs or sidewalks, the **Contractor** shall protect them from damage. Safe and adequate pedestrian and vehicular access shall be provided and maintained to fire hydrants, commercial and industrial establishments, churches, schools, parking lots, hospitals, fire and police stations, and like establishments.

4.32.4 The **Contractor** shall give seventy-two (72) hours advance notice of Work on or across private driveways to the owners of the private driveways and the **Architect, the Clerk of the Works, and Official**. The interference from such Work shall be minimized by restoring service as soon as possible. Except as otherwise provided in the technical Specifications, open excavations shall be bridged with steel plates.

4.32.5 Whenever the prosecution of the Work requires that certain operations be carried out beyond the limits of the site designated in the Contract Documents or the indications of temporary fences or barricades, the **Contractor** shall schedule trenching, utility Work, site development, and landscaping so as to occasion a minimum of disturbance to or interfere with the normal operation of the **City** or others.

4.32.6 Pumping, draining and control of surface and groundwater shall be done so as to not to endanger the Work or any adjacent facility or property, nor interrupt, restrict or interfere with the use of any such adjacent facility or property.

4.32.7 If a specific means and method is indicated in or required by the Contract Documents, the **Contractor** may furnish or utilize a substitute means and method, if the **Contractor** submits to the **Architect** sufficient information, in accordance with the applicable requirements for substitutions, to allow the **Architect** to determine whether the substitute is equivalent to that indicated or required by the Contract Documents.

4.32.8 Any damaged Work corrected by the **Contractor** shall be corrected so as to be equal in all respects including quality, appearance, function, finish, etc. to non-damaged like Work.

4.32.9 The **Contractor** shall, prior to final inspection, mark in a permanent and readily identifiable manner, all reference points provided by the **City** through the **Architect**.

4.32.10 The **Contractor** shall take whatever steps, procedures or means are required to prevent any dust nuisance due to his operations, and he shall maintain dust control measures at all times in accordance with the requirements of the **City** and any public governmental body with jurisdiction. Dumping of spoil or waste material on land or property obtained by the **Contractor** shall be in strict conformance with all applicable Laws.

4.32.11 The **Contractor** shall not obstruct access to municipal structures, hydrants, valves, manholes, fire alarms, etc., nor shall he make any connections to, operate valves or otherwise interfere with the operation of the water system without first securing the necessary approvals and permits.

4.32.12 The **Contractor** shall prosecute Work in the manner which will cause the least practicable interference with and avoid prolonged interruption of or damage to existing facilities, including underground utilities and overhead utilities. The **Contractor** shall obtain written approval from the **Official** prior to performing any Work involving connection to or interruption of existing facilities, and shall perform that Work during those periods of time which cause the least interference or annoyance.

4.33 Quality Control:

4.33.1 The **Contractor** shall establish a quality control system and submit the procedure to the Official to insure sufficient supervision, inspection and testing of all items of Work, including those of Subcontractors and Suppliers, and to control conformance to the applicable Specifications and Drawings with respect to product, workmanship, construction, maintenance while idle, finish, functional performance and identification. The **Contractor's** quality control system shall include checking, approval and coordination of Submittals and the surveillance of all specified tests. Nothing contained in these quality control requirements shall be construed as limiting the obligations of the **Contractor** under the Contract Documents.

4.33.2 The **Contractor's** quality control system shall specifically incorporate the responsibility for checking all aspects of the Work including, but not limited to the **Contractor**-established elevations, the location of all underground pipelines and electrical conduits before covering begins, all reinforcing steel before pouring concrete, and any other items of Work which cannot be located and inspected without uncovering once the particular part of the Work is complete. Data so obtained shall be recorded on the record documents.

4.34 Incidents with Historic Property Deposits:

4.34.1 The **Contractor** shall at once cease operations in the affected areas and notify in writing the **Official** of any historic

property deposits, as determined by the City of Newton Historical Commission or the Massachusetts Historical Commission, which are encountered or unearthed during the execution of the Work. The **Contractor** shall provide for the protection of the deposits in a proper and satisfactory manner, and no further disturbance of the deposits shall be permitted until the **Contractor** has been notified by the **Official** that Work can be resumed in the affected areas.

4.34.2 If any such incident with historic properties causes or will cause delay, extension or acceleration that postpones, extends or any other manner alters the schedule or completion of all or part of the Work, the **Official** shall, pursuant to the provisions in Articles 11 and 12, make or negotiate with the **Contractor**, an adjustment in Contract Price or Contract Time for any increases in the **Contractor's** cost or the time required to perform the Work. The **Contractor** assumes responsibility for any delay, extension or acceleration, from an incident with historical properties, which is reasonable under the Contract Documents.

4.35 Related Work at Site:

4.35.1 The **City** may perform other work at the Site with the City's own forces or have other work performed by other persons. If the Contract Documents did not note that other work is to be performed, written notice will be given to the **Contractor** prior to starting that other work.

4.35.2 The **Contractor** shall afford each other person or the **City** when performing other work proper and safe access to the Site and a reasonable opportunity for the handling, unloading and storage of materials and equipment and the execution of their work, and shall properly connect and coordinate the Work with theirs. The **Contractor** shall not cut, excavate or otherwise alter any other work without the written consent of the other person and the **Architect**. The **Contractor** shall afford each other person prompt written notice whenever Work interfacing with the person's work has been performed.

4.35.3 If any part of the Work depends for proper execution or results on the work of the **City** or another person, the **Contractor** shall inspect and promptly report to the **Architect** in writing conditions in that work which render it unavailable or unsuitable for proper execution and results. The **Contractor's** failure to do so will constitute an acceptance of other work as fit and proper for integration with the Work except for latent or non-apparent defects and deficiencies in the other work.

4.35.4 Wherever Work to be performed by the **Contractor** is dependent upon the work of others; the **Contractor** shall coordinate his Work with the dependent work to the same extent that he is required to coordinate dependent work. Subcontractor work under paragraph 6.2. Installation of Work by the **Contractor** or by any Subcontractor in any given area shall constitute acceptance by the **Contractor** or that Subcontractor of all previously placed dependent work.

4.35.5 If the **City** contracts with others for other work, the person or organization that will have the authority and responsibility for coordinating the activities of the **Contractor** and those others will be identified in the Supplementary Conditions. Unless otherwise specifically stated, neither the **City** nor the **Architect** shall have any authority or responsibility for coordination of the activities of the **Contractor** and those others.

4.35.6 Unless otherwise so provided in the Supplementary Conditions, the **Contractor** shall coordinate the preparation and checking of Submittals with those other persons whose work in any way relates or depends upon the Work, or vice versa, and the **Contractor** shall so represent it in the **Contractor's** Submittal to the **Architect**. Upon receipt of approval of those Submittals from the **Architect**, or receipt of a Submittal as "Re-submittal Not Required" from the **Official**, the **Contractor** shall promptly furnish prints of those Submittals to those other parties.

4.36 Mutual Duties and Responsibilities:

4.36.1 If the **Contractor** causes damage to the work or property of others, or if a claim arising out of the **Contractor's** execution of Work is made by a person against the **Contractor**, the **City**, or the **Architect**, the **Contractor** shall promptly attempt to settle with that person by agreement or otherwise resolve the claim. The **Contractor** shall defend, indemnify and hold harmless the **City** and the **Architect** from and against all claims, causes of action, lawsuits, damages, losses and expenses, whether direct, indirect or consequential, including but not limited to charges of engineers, attorneys and other professionals and costs of both defense and appeal, if any, arising out of or resulting from damage by the **Contractor** to the work or property of others or from the **Contractor's** execution of the Work.

4.36.2 If another person causes damage to the Work or property of the **Contractor**, or if the performance of other work results in any other claim by the **Contractor**, the **Contractor** shall promptly attempt to settle with that person by agreement or otherwise resolve the claim. The **Contractor** shall not institute any action against the **City** or **Architect**, their consultants, agents or any of their directors, officers, shareholders, agents or employees, or permit any action against them to be maintained in the **Contractor's** name or for his benefit in any court or before any tribunal, which action seeks to impose liability or recover damages from the **City** or **Architect** for such claim.

4.36.3 If another person performing other work causes delay, extension or acceleration that postpones, extends or in any other manner alters the schedule or completion of all or part of the Work, the **Official** shall, pursuant to Articles 11 and 12, make or negotiate with the **Contractor**, an adjustment in Contract Price or Contract Time for any increases in the **Contractor's** cost or the time required to perform the Work. The **Contractor** assumes responsibility for any delay, extension or acceleration caused by other work which is reasonable under the Contract Documents.

4.36.4 If another person performing other work is granted an extension in Contract Time on account of causes warranting said extension but without compensation, and said Contract Time is coterminous with a Contract Time under this Contract, and if the **City** concludes that said extension requires a change in the coterminous Contract Time, the **Official** shall authorize the necessary change in Contract Time only.

4.37 The Contractor's Responsibility for City Costs:

4.37.1 If the **Contractor** becomes involved in settling or otherwise resolving claims with other persons performing other work arising out of events covered under paragraphs 4.36.1 or 4.36.2, or because of any other related controversy, including damage to the Work or other work or a dispute about responsibility for clean-up or any other issue, neither the **City**, the **Architect**, nor any of their consultants, agents nor any of their directors, officers, stockholders nor employees will be involved in any way in such actions unless ordered to do so by a court of competent jurisdiction. If the **City** incurs costs contrary to the provisions of this Article, the **Contractor** shall reimburse those cost to the **City**.

ARTICLE 5 - SUBCONTRACTORS AND SUPPLIERS

5.1 Use of Subcontractors:

5.1.1 The **Contractor**, in performance of the Work, shall use the Subcontractors named in the **Contractor's** Bid and shall not use any other Subcontractor in the performance of the Work against whom the **Official** has reasonable objections; nor shall the **Contractor** be required to employ any Subcontractor against whom he has a reasonable objection.

5.1.2 The **Contractor** shall not assign, delegate, subcontract or in any way transfer any interest in this Contract without prior written consent of the **Official**

5.1.3 If the **City's** consent to a Subcontractor named by the **Contractor** prior to the giving of the notice of award is withdrawn on the basis of subsequent reasonable objections, or the **City** has reasonable objection, or the **City** for the **City's** sole convenience objects, to a Subcontractor nominated after the giving of the notice of award, the **Contractor** shall promptly proceed to nominate a substitute Subcontractor for evaluation by the **City**.

5.1.4 If any such withdrawal of the **City's** consent or any such objection for the convenience of the **City** causes an increase or decrease in the **Contractor's** cost for the part of the Work in question, the **Official** shall, except as provided below, make an adjustment in the Contract Price equal to the difference in cost between the nominated and substitute sub-agreements for that part of the Work. If any such withdrawal or objection causes or will cause delays which extend, postpone or in any other manner alters the schedule or completion of all or part of the Work, the **Contractor** shall assume all of the **Contractor's** related delay, extension or acceleration costs, however, caused; except that the **Official** shall authorize the necessary change in Contract Time **only**. The **Contractor** assumes responsibility for any and all cost and delay resulting from the **City's** reasonable objection to a Subcontractor nominated after the notice of award.

5.1.5 The **City's** consent to a nominated Subcontractor shall not constitute a waiver of any right of the **City** to reject *defective* Work nor shall the authority given to the **City** under this paragraph give rise to any duty on the part of the **City** to exercise such authority for the benefit of the **Contractor** or any other person.

5.2 Relation Between Subcontractors and Contractor:

5.2.1 In the event that a suspension, delay, interruption or failure to act of the **City** increases the cost of performance to any Subcontractor, that Subcontractor shall have the same rights against the **Contractor** for payment of an increase in the cost of his performance as provided for the **Contractor** under M.G.L. Chapter 30, Section 39O, paragraphs (a) and (b). Nothing in these paragraphs (a) and (b) shall in a way change, modify, or alter any other rights the **Contractor** or the Subcontractor may have against each other.

5.3 The Contractor's Continuing Responsibilities:

5.3.1 The **Contractor** shall be fully responsible to the **City** and the **Architect** for all acts and omissions of all the Subcontractors and Suppliers, at any tier, to the same extent as the **Contractor** is responsible for the **Contractor's** own acts and omissions. Nothing in the Contract Documents shall create any contractual relationship between the **City** or the **Architect** and any Subcontractor or Supplier, nor create any express or implied duty or obligation on the part of the **City** or the **Architect** to any Subcontractor or Supplier or the **Contractor's** sureties, to pay or to see to the payment of any monies owed to any of them.

5.4 Subagreements:

5.4.1 Work performed by a Subcontractor or Supplier shall be through an appropriate sub-agreement which expressly binds the Subcontractor or Supplier to the requirements of the Contract Documents for the express benefit of the **City** and the **Architect**, requires each of them to assume toward the **Contractor** all the obligations which the **Contractor** assumes toward the **City** and the **Architect**, and contains waiver provisions as required by paragraph 10.9. The **Contractor** shall pay each Subcontractor and Supplier as their interests may appear, a proportionate share of any funds received on account of losses under policies issued under Article 10.

5.4.2 Within seven (7) days after receipt of a written request from the **Official**, the **Contractor** shall submit an exact copy of each sub-agreement identified in the request. Such request shall not constitute approval of any Subcontractor by the **Official**. Time periods in Articles 11, 12 and 15 allowed to the **City** for making determinations on proposals, payments or claims shall be automatically extended if those sub-agreement(s) are not submitted within seven (7) days after receipt of a written request from the **Official**.

5.4.3 Subject to prior rights, if any, of the **Contractor's** surety, the **Contractor** assigns to the **City** each sub-agreement, which the **City** assumes by notifying the Subcontractor or Supplier in writing, upon a termination action under Article 14.

ARTICLE 6 - PROJECT COORDINATION

6.1 General Coordination:

6.1.1 The **Contractor** shall be responsible for the entire Project operations and shall properly coordinate the work of all trades and give all customary and proper assistance to all Subcontractors.

6.2 Subcontractor Coordination and Communications:

6.2.1 All communications and information to and from Subcontractors shall be through the **Contractor**.

6.2.2 If Work to be performed by the **Contractor** directly or through a Subcontractor, is dependent upon previously placed Work, the **Contractor** shall supply and/or install items to be built into the dependent Work, examine dependent Drawings or Specifications, and examine, check and verify dependent dimensions of previously placed Work. The **Contractor** shall notify the **Architect** of previously placed dependent Work which is unsatisfactory or will prevent a satisfactory installation of other Work. Installation of Work by the **Contractor** directly or through a Subcontractor, in any given area, shall constitute acceptance by the **Contractor** of all previously placed dependent Work.

6.3 Coordination of Electric Service:

6.3.1 The **Contractor** shall coordinate the installation of the permanent primary electrical service with the appropriate power company, to assure availability of sufficient power for all Project requirements so as not to cause any delay in the Work.

6.4 Coordination with other Contractors:

6.4.1 The **Contractor** shall coordinate his operations with those of the **City's** other contractors if they are on, about, or adjacent to, the Project site. Cooperation will be required with respect to access to the Project site in the arrangement for the storage of materials, and in the detailed execution of the Work.

ARTICLE 7 - PROSECUTION AND COMPLETION

7.1 Progress and Completion:

7.1.1 The Date for Commencement of the Contract Time shall be the date of execution of the Contract by the **Official**, unless otherwise directed in writing by the **Official**.

7.1.2 The **Contractor** shall commence the Work no earlier than the date of execution of the Contract by the **Official**, and shall prosecute and complete the Work regularly, diligently, and uninterruptedly at such rate or progress as will ensure Substantial Completion and Final Completion within the Contract Time(s).

7.1.3 Neither the **Contractor** nor the **City** shall be liable for any damages sustained by either party due to a failure to perform the Work under the terms of this Contract if such failure is in fact caused by the occurrence of a contingency the nonoccurrence of which was a basic assumption under which this Contract was made, including but not necessarily limited to a natural disaster (flood, hurricane, or earthquake); a state of war, an imminent security threat, acts of enemies, embargoes, labor strikes, provided that the **Contractor** has notified the **Official** in writing of such cause within fourteen (14) days after its occurrence.

7.1.4 Before any Work is started, the **Contractor** shall deliver to the **Official** all of the licenses, permits, certificates of insurance, and bonds required by the Contract Documents. All certificates of insurance shall clearly state **ON THE FACE OF THE CERTIFICATE** that: the **City** and any other entity required by the Contract are Additional Insureds on all required policies except Workers' Compensation for the covered project; that Waiver of Subrogation is included with respect to all policies and coverages listed above; that the above insurance is primary and non-contributory over any other insurance available to the **City**; that such insurance extends to contractual liability; and that should any of the above policies be cancelled before the expiration thereof the issuing insurer will mail written notice to the **City** as certificate holder thirty (30) days in advance. The following statement affirming that coverage completely complies with the contract requirements shall be included in the Special Items section of the certificate of insurance or in an attached Special Items Addendum Page: **"The aforementioned insurance coverages completely comply with General Conditions Article 10 insurance requirements, Paragraphs 10.5 through 10.13.** Refer to Article 10, Paragraphs 10.5 through 10.11 for additional insurance requirements.

7.1.5 The **Contractor** shall start performance and furnishing of the Work on the Date of Commencement of the Contract Time. No Work shall be done at the site prior to the date on which the corresponding Contract Time starts to run.

7.1.6 Within ten (10) days after the **City** executes the Agreement, a pre-construction meeting will be held to record twenty-four hour emergency telephone numbers for key personnel; to review the qualifications of key **Contractor** personnel, the **Contractor's** plans for lay-down, staging, construction traffic, access to the site, parking and other similar matters; to review procedures for Change Orders, Change Authorizations and Submittals; and to establish and understanding among the parties as to the Work.

7.2 Compliance with Contract Time Requirements:

7.2.1 The **Contractor** shall prosecute the Work with the diligence necessary to ensure its completion within the Contract Time. The **Contractor** shall provide sufficient labor, materials and equipment, and shall promptly undertake appropriate action to recover schedule, as may be necessary to comply with the Contract Time requirements. Except as otherwise may be permitted by the Contract Documents, all Work at the site shall be performed during normal working hours, unless the **Contractor** has obtained the **City's** prior written consent.

7.2.2 Normal working hours shall be as per the **City's** Noise Ordinance, secs. 20-13--20-19 of the Revised Ordinances of the City of Newton, or based on a schedule beginning no earlier than 7:00 A.M. and ending no later than 7:00 P.M. on weekdays (excluding legal holidays), but not exceeding forty-eight (48) hours per week. If Work during other than normal working hours is scheduled by the **Contractor**, he shall reimburse the **City** for all of the **City's** associated extra costs; such costs to include, but not necessarily limited to, the **Architect's** related charges to the **City** and other costs assessed against or incurred by the **City** as designated in the Contract Documents, and if not designated, which the **Contractor** could reasonably have been expected to be aware of.

7.2.3 Given the Contract Time requirements of the Contract Documents, Early Dates in the Progress Schedule shall be based on proceeding with all or part of the Work exactly on the date when the Contract Time for the Work, or designated part of the Work, commences to run. Late Dates shall be based on completing the Work, or specified part of the Work, exactly on the corresponding Contract Time.

7.2.4 No Work shall be performed in other than daylight conditions unless adequate lighting has been provided by the **Contractor**

after securing all required written approvals.

7.2.5 The **Contractor** shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with the **City**. No Work shall be delayed or postponed pending resolution of any disputes or disagreements. The **Contractor** shall exercise reasonable precautions, efforts and measures to avoid or mitigate situations that would cause delays.

7.3 Substantial Completion; Partial Completion:

7.3.1 When the **Contractor** considers that (a) the entire Work, or (b) a portion of the Work, for which a Contract Time for Substantial Completion has been specified in the Contract Documents, has progressed to the point where it is sufficiently complete, in accordance with the Contract Documents, the **Contractor** shall notify the **City** and **Architect** in writing that the **Contractor** considers the Work substantially complete, or that portion of the Work substantially complete as the case may be. Within a reasonable time after receipt of any such notice from the **Contractor** and **Architect** shall inspect the Work or designated portion of the Work to determine the status of completion. If the **Architect** does not consider (a) the Work substantially complete, or (b) the portion of the Work inspected substantially complete, the **Official** will, within thirty (30) days after the inspection, present in writing to the **Contractor** an itemized list of incomplete and unsatisfactory Work sufficient to demonstrate the basis for that determination.

7.3.2 If the **City**, with the advice of the **Architect**, considers the Work substantially complete, the **City** will, within twenty-one (21) days of receipt of the **Contractor's** certification, present to the **Contractor** a written declaration that the Work has been substantially completed. Such declaration shall fix a date of Substantial Completion and may attach a preliminary list of minor incomplete or unsatisfactory items not impairing the usefulness of the Work as the **City**, with the advice of the **Architect**, believes justifiable which shall be completed or corrected by the **Contractor** before the **City** considers the Work acceptable and ready for final payment.

7.3.3 In the event that the **City** fails to respond, by presentation of a written declaration or itemized list, to the **Contractor's** certification within the twenty-one (21) day period, the **Contractor's** certification shall take effect as the **City's** declaration that the Work has been substantially completed. The term "substantially complete" as applied to any Work refers to Substantial Completion.

7.3.4 At the time of delivery of the **City's** written declaration of Substantial Completion of the Work or part of the Work under Partial Utilization, the **City** will attach the **Architect's** written recommendation as to division of responsibilities between the **City** and the **Contractor** for security, operation, safety, maintenance, heat, utilities, insurance, and warranties and guarantees, pending final payment or Substantial Completion of the entire Work. If approved by the **City**, such written recommendation shall become binding upon the **City** and the **Contractor**, unless they have otherwise agreed in writing and so informed the **Architect**, prior to the **Official** issuing the Certificate of Substantial Completion.

7.3.5 If the **Architect** and **City** consider, or if after consideration of the **City's** objections, the **Architect** considers the entire Work substantially complete, or the portion of the Work inspected substantially complete, the **Architect** will deliver to the **City** and **Contractor** a Certificate of Substantial Completion with a Punch List fixing a date of Substantial Completion, a date for completion of the Punch List to the satisfaction of the **Architect** and, in the case of Substantial Completion of the Work or Partial Utilization under paragraph 7.4, a recommendation as to the division of responsibilities between the **City** and **Contractor**. If after considering the **City's** objections, the **Architect** determines that the entire Work is not substantially complete, or the portion of the Work inspected is not substantially complete, the **Architect** will notify the **Contractor** in writing stating the reasons.

7.4 Partial Utilization:

7.4.1 Utilization by the **City**, of any part of the Work, prior to Substantial Completion of the Work shall not affect the times of Substantial or Final Completion.

7.4.2 The **Contractor** agrees to permit the Partial Utilization of any part of the Work, by the **City** prior to Substantial Completion, in accordance with the following terms:

7.4.3 The **City** will, prior to any such Partial Utilization, give written notice to the **Contractor** indicating the areas intended to be used and occupied and commencement date(s) of such use.

7.4.4 Upon receipt of such notice of intent from the **City**, the **Contractor** shall promptly secure and submit to the **Official** endorsement from the **Contractor's** insurance carrier(s) and written consent from the **Contractor's** surety, permitting occupancy and use of the part of the Work, by the **City**. In addition, all **Contractor** or **subcontractor** workers who may be present in any part of the Work when students are present must be CORI checked and evidence of such provided to the **City**.

7.4.5 The **Contractor** shall maintain all insurance required under the Contract Documents for all portions of the Work used or occupied by the **City**. Such occupancy shall not affect the various guarantee periods called for by the Contract Documents.

7.4.6 The utilization of any part of the Work, by the **City** shall not be construed as final acceptance of Work, nor relieve the **Contractor** of the **Contractor's** obligation to perform any Work required by the Contract Documents, but not completed prior to Substantial Completion in, and with respect to, the areas to be occupied prior to the stipulated date Substantial Completion of the Work.

7.4.7 The **Contractor** shall not be required to maintain or clean the portion(s) of the Work so occupied, nor shall the **Contractor** be responsible for wear and tear or damage resulting solely from such occupancy.

7.4.8 It is understood and agreed that when any portion of the Work is in a reasonable condition, in the opinion of the **Official**, to receive any fittings or furniture or other property of the **City** not included in the Contract Documents, the **Contractor** shall provide all necessary facilities and protection.

7.5 City-Caused Delay:

7.5.1 In the event a suspension, delay, interruption or failure to act of the **City** increases the cost of performance to any subcontractor, that subcontractor shall have the same rights against the **Contractor** for payment for an increase in the cost of his performance as the provisions 7.5.2 and 7.5.3 give the **Contractor** against the **City**, but nothing in provisions 7.5.2 and 7.5.3 shall in any way change, modify or alter any other rights which the Contractor or the subcontractor may have against each other.

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

7.5.3 The **Contractor** must submit the amount of a claim under provision 7.5.2 to the **City** in writing as soon as practicable after the end of the suspension, delay, interruption or failure to act and, in any event, not later than the date of final payment under this Contract and, except for costs due to a suspension order, the **City** shall not approve any costs in the claim incurred more than twenty (20) days before the **Contractor** notified the **City** in writing of the act or failure to act involved in the claim. The **City** and the **Contractor** agree that it is both reasonable and practicable for any Notice of Claim under the provisions of paragraph 7.5.2 to be filed in writing with the **Official** no later than thirty (30) days after the end of the suspension, delay, interruption or failure to act that gives rise to the claim

7.5.4 No **City**-caused delay is unreasonable unless it exceeds the time specified or contemplated for the act (or failure to act) in the Progress Schedule for Work involved or affected by the **City**-caused delay.

7.5.5 Except as provided in this paragraph, no order or act, or failure to act, of the **City** or **Architect** shall constitute an unreasonable **City**-caused delay, or a **City**-caused delay which justifies an increase in Contract Price or Contract Time. No claim for an increase in Contract Price or other damages or any other claim other than for an extension in Contract Time shall be made or asserted against the **City** by reason of any delays unless specifically allowed by the Contract Documents or required by law. The **Contractor** shall not be entitled to an increase in the Contract Price or to compensation of any kind from the **City**, including extended site and home office overhead, for direct, indirect, consequential impact or other costs, expenses or damages, including but not limited to costs of acceleration or inefficiency arising because of delay, disruption or interference from any cause whatsoever. This provision shall not preclude recovery of damages by the **Contractor** for hindrances or delay due solely to fraud or bad faith on the part of the **City** or its agents. Otherwise, the **Contractor** shall be entitled only to a non-compensable extension to the Contract Time as the sole and exclusive remedy for such resulting delay, in accordance with and to the extent provided above.

7.6 Division of Responsibilities:

7.6.1 At the time of delivery of the certificate of Substantial Completion of the Work, or a certificate of Substantial Completion of a portion of the Work under Partial Utilization, the **Architect** will attach a written recommendation as to division of responsibilities between the **City** and **Contractor** for security, operation, safety, maintenance, utilities, insurance, and warranties and guarantees, pending final payment (or Substantial Completion of the Work), which shall be binding upon the **City** and **Contractor**, unless the

City and **Contractor** have otherwise agreed in writing and so informed the **Architect**.

7.6.2 Any **Architect's** recommendation as to division of responsibilities under Partial Utilization shall bind the **City** and **Contractor** at the time when the **City** starts that Partial Utilization following receipts of evidence of compliance with the requirements of paragraph 10.8 regarding property insurance.

7.7 Unreasonable Delay, Extension or Acceleration:

7.7.1 For the purposes of justifying increases in Contract Price, no delay or extension (or acceleration in lieu of any such delay or extension) for which the **City** is responsible under the Contract Documents shall be unreasonable under the circumstances, however caused, unless it extends completion of all or a specified part of the Work beyond the time specified or contemplated for all or a part of the Work in the Progress Schedule.

7.8 Use of Float:

7.8.1 Total Float and Contract Float, whether expressly disclosed in the Progress Schedule or implied by the use of float suppression techniques, are not for the exclusive benefit of the **Contractor** or **City**, and shall be available to the **City**, **Architect** and **Contractor** to offset delays which postpone, extend or in any other manner alter the schedule or completion of all or part of the Work.

7.8.2 Adjustment or removal by the **Contractor** of any float suppression techniques used, e.g. preferential sequencing, crew movements, equipment use, form reuse, etc., extended duration, imposed dates, scheduling Work not required for a Contract Time as required Work anyhow, and others will be a prerequisite to an increase in Contract Price or Contract Time.

ARTICLE 8 - PROGRESS PAYMENTS, FINAL PAYMENT & ACCEPTANCE

8.1 Schedule of Values; Application for Payment

8.1.1 The Schedule of Values shall subdivide the Work into component parts in sufficient detail to facilitate and serve as the basis for progress payments, as specified in these General Conditions, and if not specified, by further detailing of the **Contractor's** bid breakdown. For each item, the Schedule of Values shall include quantities; direct craft labor man hours, labor cost and material/equipment cost. Labor costs shall include an appropriate amount of construction equipment costs, supplemental costs, administrative expenses, contingencies and profit.

8.1.2 Pursuant to M.G.L. Chapter 30 §39 K, within fifteen (15) days after receipt from the **Contractor**, of an Application for Payment, the **City** will make a periodic payment to the **Contractor** for the work performed during the preceding month, and upon certification by the **Contractor** that he is the lawful owner and that the materials are free from all encumbrances as noted on the Transfer of Title Form, for the materials not incorporated in the Work but delivered and suitably stored at the site, or at some other location approved in writing by the **Official** to which the **Contractor** has title or to which a Subcontractor has title and has authorized the **Contractor** to transfer title to the **City**, less (1) a retention based on its estimate of the fair value of its claims against the **Contractor**, and less (2) a retention for direct payments to Subcontractors based on demands for same in accordance with the provisions of M.G.L. Chapter 30, Section 39F, and less (3) a retention not exceeding five percent (5%) of the approved amount of the periodic payment. Payment for materials and equipment stored on or off the Site shall be conditioned on compliance by the **Contractor** with procedures satisfactory to the **City** to establish the **City's** title to such materials or equipment or otherwise protect the **City's** interest, at a minimum to include a fully executed Transfer of Title Form.

8.1.3 The **Contractor's** Application for Payment shall be delivered on the day of each month established by the **Official**, by hand or by registered or certified mail, with return receipt requested, to the office of the **Architect**. The **Architect** shall mark the Application with the date of receipt. The date of receipt of an Application for Payment received on a Saturday shall be the first working day thereafter.

8.1.4 Such Application for Payment shall be in accordance with the Schedule of Values and made on a two-part form approved by the **Official** and shall be arithmetically correct and shall show (a) the value of labor and materials used in the work, and (b) the value, quantity of each item of materials not incorporated in the work but delivered and suitably stored at the site or elsewhere in accordance with this Article, and shall be accompanied by receipted bills for or other acceptable evidence of the ownership of, and satisfactory authority to transfer title to the **City** of, the materials not incorporated in the Work, and in addition, on a form satisfactory to the **Official**, an instrument transferring to the **City** title to the aforesaid materials. In addition, all Applications for Payment shall contain a separate item for each filed Subcontractor as of the date the Application is filed.

8.1.5 The **Architect** will submit the **Contractor's** Application for Payment, as checked and approved by the **Architect**, together with the **Architect's** certificate, to the **Official** not later than five (5) business days from the date the **Architect** receives an Application in the proper form from the **Contractor**.

8.1.6 The **Contractor** shall also submit, when requested by the **Official** or the **Architect**, vouchers and such other information showing payments already made by him for labor and materials used in the Work.

8.1.7 The **Architect** shall issue certificates for payments monthly, based on the **Contractor's** monthly Application for Payment. All orders and certificates shall be approved by the **Official** and shall not be binding on the **City** until so approved.

8.1.8 An Application for Payment covering Work of Subcontractors or Suppliers shall exclude amounts the **Contractor** or a Subcontractor does not intend to pay to Subcontractors or Suppliers for any reason. The **Contractor** will not be paid for any Work performed by a Subcontractor until all required evidence of insurance for that Subcontractor has been received and reviewed by the official, if such information has been requested by the **Official**. The **Contractor** and the Subcontractors shall promptly pay the amounts due to each Subcontractor and Supplier, upon receipt of payment from the **City**.

8.2 Intent of Review of Application for Payment:

8.2.1 The **Architect's** recommendation of any payment requested constitutes a representation to the **City**, based on on-site observations and on the **Architect's** review of the Application for Payment and the accompanying data and schedules, that the Work has progressed to the point indicated, that, to the best of the **Architect's** knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents subject to an evaluation of the Work for conformance with the Contract Documents as a functioning whole prior to and upon Substantial Completion, to the results of any subsequent tests called for in the

Contract Documents, to a final determination of quantities and classifications for Unit Price Work, and to any other qualifications stated in the recommendation, and that the **Contractor** is entitled to payment of the amount recommended.

8.2.2 In the case of final payment, the **Architect's** recommendation that the Work is acceptable shall be an additional representation by the **Architect** to the **Owner** that the conditions governing final payment to the **Contractor** have been met.

8.3 Review of Applications for Payment:

8.3.1 The **Official's** review of an Application for Payment will be based on on-site observations by the **Architect**, and on the **Architect's** review of the Application for Payment and of the accompanying data and schedules, and shall indicate that, to the best of the **Architect's** knowledge, information and belief, the Work has progressed to the point indicated, and that the quality of the Work is 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 specified in the Contract Documents, a final determination of quantities and classifications for Unit Price Work, and any other qualifications so stated.

8.3.2 The **Official** may make changes in any Application for Payment submitted by the **Contractor**, and the payment due on said Application shall be computed in accordance with the changes so made, but such changes or any requirement for the periodic payment or the date for the commencement of interest charges on the amount of the periodic payment shall be computed in accordance with the changes made as provided herein; provided that the **Official** may, within seven (7) days after receipt, return to the **Contractor** for correction any Application which is not in the required form or which contains computations not arithmetically correct and, in that event, the date of receipt of such Application shall be the date of receipt of the corrected Application in the proper form and with arithmetically correct computations.

8.3.3 No certificate given or payment made shall be evidence of the performance of this Contract, either wholly or in part and no payment, whether made upon the final certificate or otherwise, shall be construed as an acceptance of *defective* work or materials.

8.3.4 No payment will be made for General Conditions by the **City** to the **Contractor** until the 1) Schedule of Values; 2) Progress Schedule; 3) Schedule of Shop Drawings Submittals and Shop Drawing Log; 4) all other technical submittals, including but not limited to a Schedule for Samples, Test Procedures, Test Results and other Printed Data have all been submitted, reviewed and determined to be in accordance with the requirements of the Contract Documents. In addition, no payment will be made for General Conditions by the **City** to the **Contractor** unless Record Drawings in the required format are provided, maintained and regularly updated by the **Contractor** in accordance with the requirements of the Contract Documents. The City may withhold such amounts from progress payments or from the final payment due or to become due to the **Contractor** as are necessary to satisfy any obligations of the **Contractor** under the Contract, or to satisfy other obligations of the Contractor not related to the Contract which the **City** is ordered to satisfy by a court of competent jurisdiction or is required to satisfy by law. Obligations of the **Contractor** under the Contract that may result in withholding all or part of a payment if, in the discretion of the **City**, are not satisfactorily provided include but are not limited to: obtain all required permits and licenses; provide the required temporary facilities; security of the Site; maintenance and weekly cleaning of the Site; fire protection; wind protection; noise/pollution control; establishment of a quality control system; coordination of sub-trades and suppliers; provide a full-time licensed superintendent and competent foreman; payment of police detail and fire watch accounts; payment of **City** costs for evaluation of substitution requests; payment for site utilities; payment for all labor and materials; correction of defective work; provide project photographs; establish and maintain on-site permanent benchmarks; provide operating, service and maintenance instructions; delivery of warranties and guarantees and follow all required close-out and commissioning procedures.

8.4 Refusal to Recommend or to Make Payment:

8.4.1 The **City** may withhold from any payment an amount based on the **Official's** estimate of the fair value of its claims against the **Contractor**, including but not limited to, any liquidated damages that would become or have been determined to be due; claims made against the **City** on account of the **Contractor's** performance or furnishing of the Work; direct payments due to Subcontractors in accordance with the provisions of M.G.L. Chapter 30, §39F; subsequently discovered evidence or other items entitling the **City** to a withholding or set-off against the amount recommended; or because of the **Architect's** refusal to recommend payment. The **Official** will give the **Contractor** immediate written notice stating the reasons for such action.

8.4.2 The **Architect** may refuse to recommend the whole or any part of any payment, or because of subsequently discovered evidence or inspection or test results, nullify any such payment previously recommended, as may be necessary in the **Architect's** opinion, to protect the **City** from loss because: the Work is *defective*, or completed Work has been damaged requiring correction or replacement; the Contract Price has been reduced by Change Order; the **City** has been required to correct *defective* Work or to complete Work; reasonable evidence exists that the Work, or specified part, cannot be completed for the Contract Price or will not be completed within the Contract Time; third party claims filed or reasonable evidence indicating the probable filing of such claims; failure of the Contractor to make payments properly to Subcontractors for labor, materials or equipment; persistent failure

to carry out the Work in accordance with the Contract Documents.

8.5 Payment Upon Substantial Completion:

8.5.1 Within sixty-five (65) days after the date of Substantial Completion, the **Official** shall send to the **Contractor** for acceptance a Substantial Completion estimate for the quantity and price of the Work done and all but one percent (1%) retainage on that Work, including the quantity, price and all but one percent (1%) retainage
for the undisputed part of each work item and extra work item in dispute but excluding the disputed part thereof, less the estimated cost of completing all incomplete and unsatisfactory items and less the total progress payments made to date for the Work. The **Official** also shall deduct from the Substantial Completion estimate an amount equal to the sum of all demands for direct payment filed by Subcontractors and not yet paid to Subcontractors or deposited in joint accounts pursuant to M.G.L. Chapter 30, Section 39F, but the **Official** shall not deduct any amount by virtue of claims asserted against the **Contractor** by Subcontractors or Suppliers.

8.5.2 Within fifteen (15) days after the effective date of declaration of Substantial Completion, the **Official** shall send to the **Contractor** by certified mail, return receipt requested, a complete list of all incomplete or unsatisfactory Work items, and, unless delayed by causes beyond his control, the **Contractor** shall complete all such items within forty-five (45) days after the receipt of such list or before the date for final payment and acceptance, whichever is later. If the **Contractor** fails to complete the Work items within such time, the **Official** may, subsequent to seven (7) days written notice to the **Contractor** by certified mail, return receipt requested, terminate the Contract and complete the incomplete or unsatisfactory items and charge the cost of same to the **Contractor**.

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

8.5.4 Not later than the sixty-fifth (65th) day after each Subcontractor substantially completes his Work in accordance with the Contract Documents, the entire balance due under the Subcontract, less amounts retained by the **Official** as the estimated cost of completing the incomplete and unsatisfactory items of Work, shall be due the Subcontractor; and the **City** shall pay that amount to the **Contractor**. The **Contractor** shall pay to the Subcontractor the full amount received from the **City** less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the Subcontractor by the **Contractor**.

8.5.5 If, within seventy (70) days after the Subcontractor has substantially completed his Work, the Subcontractor has not received from the **Contractor** the balance due under the Subcontract including any amount due for extra labor and materials furnished to the **Contractor**, less any amount retained by the **City** as the estimated cost of completing the incomplete and unsatisfactory items of Work, the Subcontractor may demand direct payment of that balance from the **City**. The demand shall be by a sworn statement delivered to or sent by registered mail to the **Official**, and a copy shall be delivered to or sent by registered mail to the **Contractor** at the same time. The demand shall contain a detailed breakdown of the balance due under the Subcontract and 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 (70th) day after the Subcontractor has substantially completed the Work. Within ten (10) days after the Subcontractor has delivered or so mailed the demand to the **Official** and delivered or so mailed a copy to the **Contractor**, the **Contractor** may reply to the demand. The reply shall be by a sworn statement delivered to or sent by registered mail to the **Official** and a copy shall be delivered to or sent by registered 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 **Contractor** and the amount due for each claim made by the **Contractor** against the Subcontractor.

8.5.6 Within fifteen (15) days after receipt of the demand by the **Official**, but in no event prior to the seventieth day after Substantial Completion of the Subcontract Work, the **Official** 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 **Contractor** less any amount (i) retained by the **City** as the estimated cost of completing the incomplete or unsatisfactory items of work, (ii) specified in any court proceedings barring such payment, or (iii) disputed by the **Contractor** in the sworn reply; provided, that the **Official** 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 paragraph 8.5.5 above. The **City** 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 paragraph.

8.5.7 The **City** shall deposit the amount deducted from a direct payment as provided in part (iii) of paragraph 8.5.6 in an interest-

bearing joint account in the names of the **Contractor** and Subcontractor in a bank in Massachusetts selected by the **Official** or agreed upon by the **Contractor** and the Subcontractor and shall notify the **Contractor** and the Subcontractor of the date of the deposit and the bank receiving the deposit. The bank shall pay the amount in the account, including accrued interest, as provided in an agreement between the **Contractor** and the Subcontractor or as determined by decree of a court of competent jurisdiction and appropriate venue.

8.5.8 All direct payments and deductions from demands for direct payments deposited in an interest-bearing account or accounts in a bank pursuant in a paragraph 8.5.7, shall be made out of amounts payable to the **Contractor** at the time of receipt of a demand for direct payment from a Subcontractor and out of amounts which later become payable to the **Contractor** and in the order of receipt of such demands from Subcontractors. All direct payments shall discharge the obligation of the **City** to the **Contractor** to the extent of such payment.

8.5.9 The **Official** shall deduct from payments to the **Contractor** amounts which, together with the deposits in interest-bearing accounts pursuant to paragraph 8.5.7, are sufficient to satisfy all unpaid balances of demands for direct payment received from Subcontractors. All such amounts shall be designated for such direct payments, and the Subcontractors all have a right in such deductions prior to any claims against such amounts by creditors of the **Contractor**.

8.6 Payment to Subcontractors (Chapter 30 §39F):

8.6.1 After the **Contractor** receives payment on account of an Application for Payment, the **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 **Contractor**.

8.6.2 Each payment made by the **City** to the **Contractor** for the labor performed and the materials furnished by a Subcontractor shall be made to the **Contractor** for the account of that Subcontractor; and the **Official** shall take reasonable steps to compel the **Contractor** to so pay such Subcontractor, however the **City** shall have no obligation to pay or to see to the payment of money to any Subcontractor or Supplier, except as may otherwise be required by law or by a court of competent jurisdiction. If the **Official** has received a demand for direct payment from a Subcontractor for any amount which has already been included in a payment to the **Contractor** or which is to be included in a payment to the **Contractor** for payment to the Subcontractor, the **Official** shall act upon the demand as provided in this Article.

8.6.3 Any assignment by a Subcontractor of the rights under this paragraph 8.6 to a surety company furnishing a bond under the provisions of M.G.L. Chapter 149, §29 shall be invalid. The assignment and subrogation rights of the surety to amounts included in a demand for direct payment which are in the possession of the **City** or which are on deposit pursuant to paragraph 8.5.7 shall be subordinate to the rights of all Subcontractors who are entitled to be paid under this Section and who have not been paid in full.

8.6.4 A **Contractor** or Subcontractor shall enforce a claim to any portions of the amount of a demand for direct payment deposited as provided in this Article, by a petition in equity in the Superior Court against the other and the bank shall not be a necessary party. A Subcontractor shall enforce a claim for direct payment or a right to require a deposit as provided in this Article by a petition in equity in the Superior Court against the **City** and the **Contractor** shall not be a necessary party.

8.6.5 "Subcontractor" as used in this paragraph 8.6 shall mean a person who files a Sub-Bid and receives a subcontract as a result of that filed Sub-bid or who is approved by the **Official** in writing as a person performing labor or both performing labor and furnishing materials pursuant to a contract with the **Contractor**.

8.7 Final Application for Payment:

8.7.1 Upon written notice from the **Contractor** that the entire Work or a specified part is complete and ready for final payment, the **Architect** will make final inspection with the **Official** and the **Architect** will notify the **Contractor** in writing of all instances of incomplete or *defective* Work revealed by the final inspection. The **Contractor** shall immediately undertake any necessary measures to correct the deficiencies.

8.7.2 After the **Contractor** has completed all such corrections to the satisfaction of the **Architect** and delivered all maintenance and operating instructions, guarantees, bonds, certificates of inspection, marked-up record documents (revised to reflect any changes or corrections made after Substantial Completion) and all other required documents, and after the **Architect** has consented to review the Work to determine whether it is acceptable, the **Contractor** may make application for final payment. The application for final payment shall enclose: affidavits certifying that the bonds and insurance are in effect and that insurance coverage will not be canceled, adversely changed or renewal refused except as provided under paragraph 10.5.5; AIA document G707 certifying that the surety agrees that final payment shall not relieve the surety of any of its obligations under the Bond; affidavits of compliance; complete and legally effective waivers acceptable to the **Official** from all persons holding payment claims against the Work, or if

any Subcontractor or Supplier refuses or fails to furnish such waiver, a bond or other security acceptable to the **Official** to indemnify the **City** against any such payment claim; and a list of all property damage and injury insurance claims arising due to Work performed handled by the **Contractor** and the **Contractor's** insurer identifying the claimant, the nature and the action taken.

8.8 Final Payment and Acceptance:

8.8.1 If, on the basis of the **Architect's** observation of the Work and final inspection, and his review of the final Application for Payment, the **Architect** is satisfied that the Work, or specified part of the Work, has been completed and the **Contractor's** other obligations under the Contract Documents have been fulfilled, the **Architect** will, within thirty (30) days after receipt of the final Application for Payment, furnish to the **Official** and the **Contractor** the **Architect's** recommendation of acceptance. If not satisfied, the **Architect** will return the Application to the **Contractor** indicating in writing the reasons for not recommending final payment and acceptance, in which case the **Contractor** shall make the necessary corrections and resubmit the Application.

8.8.2 After the receipt of an Application for final payment, and within sixty-five (65) days after (a) the **Contractor** fully completes the Work or substantially completes the Work so that the value of the Work remaining to be done is, in the estimate of the **Official**, less than one percent (1%) of the original Contract Price, or (b) the **Contractor** substantially completes the Work and the **City** takes possession for occupancy, whichever occurs first, the **City** shall pay the **Contractor** the entire balance due on the Contract less (1) a retention based on its estimate of the fair value of its claims against the **Contractor** and of the cost of completing the incomplete and unsatisfactory items of work and less (2) a retention for direct payments to Subcontractors based on demands for same in accordance with the provisions of M.G.L. Chapter 30, §39F, or based on the record of payments by the **Contractor** to the Subcontractors under this Contract if such record of payment indicates that the **Contractor** has not paid Subcontractors as provided in §39F.

8.8.3 If the **City** fails to make payment as provided for in Paragraph 8.8.2, there shall be added to each such payment daily interest at the rate of three percentage points above the rediscount rate then charged by the Federal Reserve Bank of Newton commencing on the first day after said payment is due and continuing until the payment is delivered or mailed to the **Contractor**; provided, that no interest shall be due, in any event, on the amount due on an Application for final payment until fifteen (15) days after receipt of such an Application from the **Contractor**. The **Contractor** agrees to pay to each Subcontractor a portion of any such interest paid in accordance with the amount due each Subcontractor.

8.8.4 If the **City** fails to prepare and send to the **Contractor** the final estimate within thirty (30) days after receipt of notice of completion, the **City** shall include in the final estimate interest on the amount which would have been due to the **Contractor** at the rate specified in paragraph 8.5.3 from the thirtieth (30th) day after such completion until the date on which the **Official** sends the final estimate to the **Contractor** for acceptance or the date of payment, whichever occurs first, provided that the **Official's** inspection shows that no Work items required by the Contract Documents remain incomplete or unsatisfactory. Interest shall not be paid under this provision on amounts for which interest is to be paid under paragraph 8.4.

8.8.5 In consideration of execution of this Contract by the **City**, the **Contractor** agrees that simultaneously with the acceptance of what the **City** tenders as the final payment by it under this Contract, he will execute and deliver to the **City** an instrument under seal releasing and forever discharging the **City** of and from any and all claims, demands, and liabilities whatsoever of every name and nature both at law and in equity arising from growing out of, or in any way connected with this Contract, save only such claims, demands, and liabilities as are expressly excepted in said instrument. It is agreed that the person who in fact executes and delivers said instrument shall be deemed to be authorized and empowered to execute and deliver the same on behalf of the **Contractor**.

8.8.6 If the **City** does not concur with the **Architect's** determination, the **City** will return the application to the **Contractor** indicating in writing the reasons for refusing final acceptance, in which case the **Contractor** shall make the necessary corrections and resubmit the application. The **City's** written determination will be binding upon the **Contractor**, unless he delivers to the **City** a written Notice of Claim within thirty (30) days after receipt of the determination in compliance with Article 15.

8.8.7 If through no fault of the **Contractor** final completion of the Work is significantly delayed and if recommended by the **Architect**, the **City** may, upon receipt of the **Contractor's** Final Application for Payment, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the balance to be held by the **City** for Work not fully completed or corrected is less than the retainage on that Work, the affidavits specified in paragraph 8.7.2 and the releases or waiver, or bonds, shall be furnished as required and submitted by the **Contractor**. Payment of the balance due shall be made under the provisions for final payment, but it shall not constitute a waiver of claims.

8.9 Payment for Labor and Materials by Contractors and Subcontractors:

8.9.1 The **Contractor** agrees that he and all Subcontractors performing the Work shall pay for all Labor performed or furnished and materials used or employed in the performance of the Work including lumber so employed which is not incorporated in the

Work and is not wholly or necessarily consumed or made so worthless as to lose its identity, but only to the extent of its purchase price less its full salvage value, and including also any material specially fabricated at the order of the **Contractor** or Subcontractor for use as a component part of the Work so as to be unsuitable for use elsewhere, even though such material has not been delivered and incorporated into the Work, but only to the extent that such specially fabricated materials is in conformity with the Contract Documents, or any charges for materials used or employed therein which are consigned to the **Contractor** or to a Subcontractor who has a direct contractual relationship with the **Contractor**, and shall pay all sums due for the rental or hire of vehicles, steam shovels, roller propelled by steam or other power, concrete mixers, tools, and other appliances and equipment employed in the Work; and shall pay the transportation charges directly related to such rental or hire; and shall pay all sums due trustees or other persons authorized to collect such payments from the **Contractor** or Subcontractors based upon the labor performed or furnished as aforesaid for a maximum of one-hundred twenty (120) consecutive calendar days, for health and welfare 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.

8.9.2 In the event that the Contract Documents provide for reimbursement by the **City** to the **Contractor** for travel or other expenses, the **Contractor** shall submit such proposed expenses to the **Official** for approval prior to the incurrence of such expenses.

8.10 Penalties for False Claims:

8.10.1 The attention of the **Contractor** and all Subcontractors is directed to each of the following sections of the M.G.L. regarding penalties for presentation to the **City** of what the **Contractor** or Subcontractor knows to be a false claim or claims.

8.10.1.1 M.G.L. Chapter 266, §67B provides for criminal penalties of a fine of not more than Ten Thousand Dollars ($10,000.00) or for imprisonment for not more than five years in State Prison or for not more than two and one half years in the House of Correction, or both; M.G.L. Chapter 12, §5B provides for civil penalties of not less than Five Thousand Dollars ($5,000.00) and not more than Ten Thousand Dollars ($10,000.00) per violation, plus three times the amount of damages sustained by the City as well as the cost to recover said damages; and M.G.L. Chapter 29, §29F provides for debarment from bidding on all public work for a specified period of time that may be imposed for willfully supplying materially false information incident to performing any public contract or subcontract.

8.11 Contractor's Continuing Obligation:

8.11.1 The **Contractor's** obligation to perform and complete the Work in accordance with the Contract Documents is absolute. None of the following constitutes acceptance of Work not in accordance with the Contract Documents or a release of the **Contractor's** obligation to perform the Work in accordance with the Contract Documents: (a) a recommendation of any progress or final payment by the **Architect**, (b) the issuance of a certificate of Substantial Completion, (c) any payment by the **City** to the **Contractor**, (d) any Partial Utilization by the **City**, (e) any act of acceptance by the **City** nor any failure to do so, (f) any review and approval of a Shop Drawing, sample, test procedure, or other Submittal, (g) any review of a Progress Schedule, (h) any inspections, tests or approvals, (i) the issuance of a notice of acceptability by the **Architect**, (j) any correction of *defective* Work by the **Official**.

8.12 Waiver of Claims:

8.12.1 The making and acceptance of final payment will not constitute a waiver by the **City** of any rights in respect of the **Contractor's** continuing obligations under the Contract Documents, nor will it constitute a waiver of (a) any claims by the **City** against the **Contractor** still unsettled, (b) any claims arising from unsettled payment claims, *defective* Work appearing after final inspection or failure by the **Contractor** to comply with the Contract Documents or the terms of any special warranties or guarantees provided by the Contract Documents or by Law.

8.12.2 The making and acceptance of final payment will constitute a waiver of all claims by the **Contractor** against the **City** other than those previously made on a timely basis in writing and still unsettled.

ARTICLE 9 - PROTECTION OF PERSONS AND PROPERTY

9.1 General:

9.1.1 The **Contractor** shall be responsible for all Site security and he shall protect everything on, in, or at the site from injury by water, frost, wind, fire, accident, theft, vandalism or other cause, and any interference; take charge of, protect, and be liable for any loss of or damage to the materials for use under this Contract delivered at or in the vicinity of the Site, and whether or not suitably stored at the Site, or at some other location agreed upon in writing by the **Official**, pursuant to this Section by whomever furnished; take all proper precautions to protect the **City's** property or adjoining property from damage or unnecessary interference; provide proper means of access to the property and replace or put in a good condition every public or private way, conduit, catch basin, fence, trees, or other things damaged by the **Contractor** in performing the Work, unless permanently done away with on approval of the **Official**, for the proper performance of the Work; take all proper precautions to protect persons from injury, unnecessary interference or inconvenience, and be responsible for the results of any failure in doing so; leave an obstructed way along public and private places for pedestrians and vehicular traffic and leave direct access to hydrants; provide proper walks over and around any obstruction made in public places in the performance of the Work; maintain from the beginning of twilight through the whole of every night, on or near the obstruction, sufficient lights and guards to protect travelers from injury thereby; when the Work is suspended keep all roadways and sidewalks in proper condition, and put and leave the same in safe condition at the completion of the Work, all to the satisfaction of the **Official**.

9.1.2 Any additional requirements for protection of persons and property shall be as set forth in these General Conditions and in the Supplementary Conditions.

9.2 Safety and Protection:

9.2.1 The **Contractor** shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs. The **Contractor** shall take all necessary precautions for the safety of, and shall erect and maintain all necessary safeguards and provide the necessary protection to prevent damage, injury or loss to: (a) all employees on the Work, (b) other persons who may be affected, (c) all the Work and materials and equipment to be incorporated into the Work whether in storage on or off the Site and (d) other property at or adjacent to the Site including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and Underground Utilities not designated for removal, relocation or replacement. Unless otherwise stated in writing by the **Contractor** to the **Official**, the **Contractor's** safety representative at the site shall be the superintendent.

9.2.2 The **Contractor** shall, and shall require all Subcontractors to comply with all Laws including **City** ordinances and regulations governing the safety and protection of persons or property, including but not limited to (a) the Occupational Safety and Health Act and the Hazard Communication Act, as promulgated by the Federal Government and as adopted by the Commonwealth of Massachusetts, and (b) all applicable State health and safety requirements. The **Contractor** shall be responsible for all fines and penalties imposed for any related violation(s) of Federal, State and **City** health and safety requirements.

9.2.3 The **Contractor** shall notify owners of adjacent property, including Underground Utility owners, in writing seventy-two hours in advance when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. The **Contractor** shall simultaneously notify the **Clerk of the Works and Official** of any notice given to owners of adjacent property. All damage, injury or loss to that property caused, directly or indirectly, in whole or in part, by the **Contractor**, any Subcontractor or Supplier shall be remedied by the **Contractor**, except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of the **City** or the **Architect**, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of the **Contractor**. The **Contractor** shall shore up, brace, underpin, and protect as may be necessary, all foundations and other parts of all existing structures adjacent to the Site. These **Contractor's** duties and responsibilities shall continue until the **Architect** has issued written notice to the **City** and the **Contractor** that the Work is acceptable.

9.2.4 Blasting operations, if any are specifically approved by the **Official**, shall be conducted by competent and suitably trained and qualified persons and in strict accordance with the rules and regulations of the Massachusetts Department of Public Safety governing the keeping, storage, use, manufacturer, sale, handling, transportation or other disposition of explosives, and such other rules and regulations as may be promulgated from time to time by authorities having jurisdiction. The **Contractor** shall obtain all required permits prior to the use of explosives, and shall furnish a copy of those permits to the **Official** prior to their use. When using other hazardous materials or equipment, the **Contractor** shall exercise the utmost care and shall carry on such activities under the supervision of competent and properly qualified persons.

9.2.5 The **Contractor** is fully responsible for initiating, maintaining and supervising all safety precautions and programs related to

safety on the site. The **Contractor** shall submit to the **Official** no later than fifteen (15) days after the Date for the Commencement of Work, his written plan for site Safety and Accident prevention. This plan must be submitted to the **Official** prior to the **Contractor's** submittal of the first Application for Payment.

9.2.6 Except as otherwise may be provided in the technical specifications, if the **Contractor** encounters material at the site reasonably believed to be asbestos or polychlorinated biphenyl (PCB) which has not been rendered harmless, the **Contractor** shall immediately stop all affected Work, report the condition to the **Official** in writing and take appropriate health and safety precautions. Upon receipt of any such notice, the **Official** will investigate the conditions. If in fact the material is asbestos or PCBs which have not been rendered harmless, the **Official** shall suspend all affected Work and proceed to have the asbestos or PCB material removed or rendered harmless by either negotiating a Change Order or Change Authorization with the **Contractor**, by means of separate contract or as the **Official** may otherwise deem expedient, or in the alternative, terminate the affected Work or the entire Agreement for convenience, as provided in Article 14.

9.2.7 Once the material has been removed or rendered harmless, the affected Work shall be resumed as directed by the **Official**. If any such incident causes or will cause delay, extension or acceleration that postpones, extends or in any other manner alters the schedule or completion of all or part of the Work, the **Owner** shall, pursuant to the provisions in Articles 8 and 11, make or negotiate with the **Contractor**, an adjustment in Contract Price or Contract Time for any increases in the **Contractor's** actual documented cost or the time required to perform the Work. The **Contractor** assumes responsibility for any related delay, extension or acceleration that is reasonable under the Contract Documents.

9.3 Accident Prevention:

9.3.1 The **Contractor** shall comply with all recommendations and requirements for accident prevention of the Associated General Contractors of America and the provisions for accident prevention included in the Commonwealth of Massachusetts, 454, CMR 10.0 "Construction Industry Rules and Regulations." The **Contractor** should note that these aforementioned recommendations and requirements are the minimum standards that are to be adhered to.

9.3.2 Neither the **City** nor the **Architect** nor any officer, agent or employee of either of them shall be responsible for providing safe working places, safety measures, means or techniques for the **Contractor**, Subcontractors or their employees or any individual.

9.4 Fire Protection and Prevention:

9.4.1 The **Contractor** will ensure that the requirements in the Contract Documents and any and all permits issued regarding Fire Protection and Prevention, including firewatch, are strictly adhered to during the entire Contract Time, until Final Completion of the Work.

9.5 Wind Protection:

9.5.1 The **Contractor** shall take every precaution to minimize danger to persons, damage to the Work, and damage to adjacent properties resulting from winds. These precautions shall include, but not limited to, removing all loose materials, tools and/or equipment from exposed locations, and removing or securing scaffolding or other temporary work.

9.6 Insurance Inspection:

9.6.1 The **Contractor** shall provide for periodic inspections by his insurance underwriters and shall submit written evidence of the same to the **Official**. The **Contractor** shall, at his expense, promptly carry out their recommendations.

9.7 Security:

9.7.1 The **Contractor** shall provide, at no increase in Contract Price, sufficient security at the Site at all times when the **Contractor's** personnel are not present for the protection of all Work, materials, equipment, and property at the Site, from the Commencement of the Work until Substantial Completion of the Project.

9.7.2 If the **Contractor** fails to provide sufficient security as called for in paragraph 9.7.1, the **Official** may elect to provide such sufficient security as required, and charge the associated costs to the **Contractor**.

9.8 Welding and Cutting:

9.8.1 All welding and cutting shall be in accordance with Newton Fire Department regulations. Torch cutting and/or welding operations by Subcontractors shall have the approval of the **Contractor** prior to start of such operations. In addition to the

requirements of this Article, wherever electric or gas welding or cutting work is done in the vicinity of combustible material, or over areas where persons may be found, interposed shields of fireproof material shall be used to protect against fire damage or injury. Personnel with suitable fire extinguishing equipment shall be stationed near welding and cutting operations to prevent the sparks from lodging in floor cracks or passing through floor or wall openings and from lodging in combustible materials. Chemical extinguishers shall be available and ready for use in all locations where torch cutting and/or welding operations are in progress.

9.9 Overloading:

9.9.1 The **Contractor** shall neither cause nor allow the design live load of any or all parts of the structure to be exceeded at any time during the performance of the Work.

9.10 Noise and Pollution Control:

9.10.1 All Work performed under the Contract Documents shall conform to the requirements of: M.G.L. Chapter 111, §§ 31C and 142D; Rules and Regulations adopted by the Commonwealth of Massachusetts Department of Public Health, Division of Environmental Health; the City of Newton Noise Ordinance, secs. 20-13 – 20-19 of the Revised Ordinances of the City of Newton; the Inspectional Services Department; the Newton Health and Human Services Department; and all other regulatory agencies having jurisdiction.

9.11 Weather Protection:

9.11.1 In accordance with the requirements of M.G.L. Chapter 149, §44G(d) the **Contractor** shall be responsible for initiating, maintaining and supervising all weather protection precautions and programs in connection with the Work. As part of this responsibility, the **Contractor** shall provide temporary enclosures and heat to permit construction work to be carried on during the months of November through March, and shall furnish, if required by the **Official**, one (1) accurate Fahrenheit thermometer with daily high and low readings for every 2,000 square feet of floor space where the work areas exceed 2,000 square feet.

9.11.2 "Weather Protection" shall mean the temporary protection of that Work adversely affected by moisture, wind and cold, by covering, enclosing and/or heating. This protection shall provide adequate working areas during the months of November through March as determined by the **Official** and consistent with the approved Progress Schedule to permit the continuous progress of all Work necessary to maintain an orderly and efficient sequence of construction operations. The **Contractor** shall furnish and install all "weather protection" material and be responsible for all costs, including heating required to maintain a minimum temperature of 40 degrees Fahrenheit at the working surface. This provision does not supersede any specific requirements for methods of construction, curing of materials or the applicable general conditions set forth in the Contract Documents with added regard to performance obligations of the Contract, the **Contractor** shall submit to the **Official** the required number of copies of his proposed methods for "Weather Protection."

9.11.3 Weather protection and heating devices shall comply with safety regulations, including provisions for adequate ventilation and fire protection devices. Heating devices that may cause damage to finish surfaces shall not be used.

ARTICLE 10 - LEGAL REQUIREMENTS AND INSURANCE

10.1 Laws; Permits and Licenses:

10.1.1 The **Contractor** shall become familiar with and comply with all applicable Laws, and shall give all notices required by laws, ordinances, rules, regulations and lawful orders of public authorities applicable to the performance of the Work. Unless otherwise expressly stated, references in the Contract Documents to Laws shall mean the current version or edition of the Law. Unless expressly required by Law, neither the **City** nor **Architect** shall be responsible for monitoring the **Contractor's** compliance with any Laws. If the **Contractor** believes the Contract Documents deviate from the requirements of any permits, codes or Laws, the **Contractor** shall give the **Architect** and the **City** prompt written notice. If the **Contractor** performs any Work knowing or having reason to know it is contrary to any permits, codes or Laws, the **Contractor** shall bear responsibility for all resulting cost and delay. Except as provided in paragraph 10.1.3, the **Contractor** shall bear responsibility for all costs and delays arising from these obligations.

10.1.2 The **Contractor** shall obtain and pay for all legally required permits and licenses, and the **Contractor** shall pay all governmental charges, impact fees, inspection fees and other fees necessary for the prosecution of the Work including Work involved in a Change Order, Change Authorization or claim, and submit copies to the **Architect**. The **Contractor** shall meet all requirements of those permits, licenses and fees. If the **Official** has obtained any permits or licenses, the **Contractor** shall meet all requirements of those permits and licenses. The **Contractor** shall pay all charges of utility Officials for connections to the Work. Except as provided below, the **Contractor** shall bear all costs and delays arising from these responsibilities.

10.1.3 If the requirements of any issued permit or license, or of any Laws applicable to the Work, differ from those specified in the Contract Documents, or if not specified, enacted before the date of Bid opening, the **Contractor** shall, promptly after becoming aware, notify the **Architect** in writing. If the **Official**, with the advice of the **Architect**, concludes that the Contract Documents require changing because of that variance, the **Official** shall authorize the required changes together with any adjustment in Contract Price necessitated solely by the variance. If the variance causes or will cause delay, extensions or acceleration that postpones, extends or in any other manner alters the schedule or completion of all or part of the Work, the **Official** shall, pursuant to the provisions in Articles 11 and 12, make or negotiate with the **Contractor**, an adjustment in Contract Price or Contract Time for any increases in the **Contractor's** cost or the time required to perform the Work. The **Contractor** assumes responsibility for any related delay, extension or acceleration under the Contract Documents.

10.1.4 If the **Contractor** observes that the Contract Documents are at variance with the requirements of any permits, licenses, or Laws, the **Contractor** shall give the **Architect** prompt written notice. If the **Contractor** performs any Work knowing or having reason to know that it is contrary to permits or licenses, or Laws, the **Contractor** shall assume all resultant costs and delays.

10.1.5 If the **Contractor** delays the progress of any related work at the Site let by the **City** under a separate contract apart from this Contract so as to cause loss for which the **City** becomes liable, then he shall reimburse the **City** for such loss based on actual costs incurred by the **City**.

10.2 Patent Fees and Royalties:

10.2.1 The **Contractor** shall pay all license fees and royalties and bear all costs incident to the use, in the performance of the Work or the incorporation into the Work, of any invention, design, process, product or device covered by patent rights or copyrights. If a particular item is specified in the Contract Documents or is selected by the **Contractor** for use in the performance of the Work, and its use is subject to patent rights or copyrights calling for the payment of any license fees or royalties, it shall remain the responsibility of the **Contractor** to assume all costs incident to its use. Whenever the **Contractor** is required or elects to use any such item, the right for its use shall be provided for by suitable agreement(s) with the patentee or owner, and copies of the agreement(s) shall be filed with the **Architect**. However, whether or not agreement(s) is/are made or filed as noted, the **Contractor** and his surety shall in all cases defend, indemnify and hold harmless the **Owner** and **Architect** from and against all claims, causes of action, lawsuits, damages, losses and expenses, whether direct, indirect or consequential, including but not limited to charges of engineers, attorneys and other professionals and costs of both defense and appeal, if any, in the remainder of this Article 10 referred to collectively as "claims", arising from patent rights or copyrights infringements.

10.3 Taxes:

10.3.1 Except as otherwise provided in the Instructions to Bidders, the **Contractor** shall pay all sales, consumer, use and other taxes assessed against the **City** or the **Contractor** in accordance with Laws covering the Work. The **Official** shall make an adjustment in Contract Price for any increased taxes covering the Work paid by the **Contractor**, provided that those increases in

taxes were enacted after the date of Bid opening. The **City of Newton** is exempt from Massachusetts Sales Tax. The Certificate of Exemption Number is E-046-001-404.

10.3.2 M.G.L. Chapter 64, §6(f) exempts, from Massachusetts sales tax, materials and supplies consumed, employed or expended in the Work, materials and supplies physically incorporated in the Work, and rental charges for construction vehicles and equipment rented specifically for use on the Work or while being used exclusively for the transportation of materials for the Work.

10.4 Performance, Payment and Other Bonds:

10.4.1 The **Contractor** shall furnish Performance and Payment Bonds with good and sufficient surety, each in an amount equal to the Contract Price, as the security required by M.G.L. Chapter 149. All bonds shall be in the forms specified in the Contract Documents, and shall only be issued by a surety currently licensed to do business by the Commonwealth of Massachusetts Division of Insurance and appearing on the current U.S. Treasury Circular 570 List of Approved Sureties and remain in effect until the end of the Correction Period. Attorneys-in-Fact who sign Bonds shall attach a certified copy of their Power of Attorney to conduct business in the Commonwealth of Massachusetts.

10.5 The Contractor's Insurance-General:

10.5.1 The insurance the **Contractor** shall purchase and maintain at his expense shall include the coverage required by the laws of the Commonwealth of Massachusetts as well as that specified in this Article, and be written for not less than the limits of coverage required in this Article or as required by the laws of the Commonwealth of Massachusetts. Deductible amounts shall be reduced or eliminated upon the **Official's** written request. The insurer's costs of providing the insured(s) a defense and appeal, including attorney's fees, may not be included in, and shall be in addition to, the limits of the policy coverages. Certificates of Insurance must be delivered to the **Official** before any work is started, and shall be in the form required by Paragraph 7.1.4 and in the coverages and minimum policy limits required in this Article.

10.5.2 The **Contractor** shall not start or continue to perform any Work unless he has in full force and effect all required insurance; nor shall he allow any Subcontractor or Supplier to perform any Work until that Subcontractor or Supplier has in full force and effect all required insurance or the **Contractor's** insurance has been endorsed to add that Subcontractor or Supplier as an additional insured.

10.5.3 Insurance shall only be provided by insurers licensed to transact business in the Commonwealth of Massachusetts.

10.5.4 Deductible amounts shall be reduced or eliminated upon the **Official's** written request. The insurer's costs of providing the insureds a defense and appeal, including attorney's fees, may not be included, and shall be in addition to, the limits of the coverage provided.

10.5.5 All the policies of insurance shall be endorsed to provide that the coverage afforded will not be canceled, adversely changed or renewal refused until the expiration of at least thirty (30) days prior written notice to the **Official** by registered mail. Should any coverage approach expiration during the period in which it is to remain in full force and effect, it shall be renewed prior to its expiration, and a renewal certificate filed with the **Official** at least fifteen (15) days prior to expiration.

10.5.6 If any of the **Contractor's** sureties or insurers is declared bankrupt or placed into receivership, ceases to meet the requirements of the Contract Documents, or its license to do business in the Commonwealth of Massachusetts is terminated, the **Contractor** shall immediately substitute other bonds/sureties or insurers/policies, which shall conform to the requirements of the Contract Documents, and shall file the appropriate bonds or certificates of insurance with the **Official**.

10.5.7 The required insurance coverages shall be placed with insurance companies licensed by the Commonwealth of Massachusetts Division of Insurance to do business in the Commonwealth of Massachusetts and having a Best's rating of "A"; shall be taken out before the Contract Time commences and be kept in full force and effect throughout the term of the Contract; shall be primary and non-contributory to any coverages maintained by the **City**; and shall require that the **City** be given thirty (30) days advance notice in the event of any cancellation or any materially adverse change in coverage. All such insurance, with the possible exception of Pollution Liability Insurance, shall be written on an occurrence basis form as opposed to a claims-made basis form. The **City** shall be named as an additional insured under the Commercial General Liability, Umbrella, Automobile Liability, Pollution Liability and Builders Risk policies. Additional insured form ISO CG 20-10 11/85 or equivalent, and Waiver of Subrogation in Favor of Owner form ISO CG2404 is required under the General Liability and Umbrella policies. The Workers' Compensation and Employers' Liability policies shall include a waiver of subrogation in favor of the **City**. All such insurance as is required of the **Contractor** shall be provided by or on behalf of all Subcontractors to cover their operations. The **Contractor** shall be held responsible for any modifications, deviations or omissions in compliance with these requirements by the Subcontractors. At the inception of the Contract and throughout the term of the Contract the City shall be provided with certificates of insurance

evidencing that such insurance policies are in place and provide the coverages required.

10.6 The Contractor's Liability Insurance:

10.6.1 The **Contractor** shall purchase and maintain commercial general liability and other insurance appropriate for the Work and which will provide protection from claims itemized below which may arise out of or result from the **Contractor's** performance and furnishing of the Work and the **Contractor's** other obligations under the Contract Documents, whether the Work and other obligations will be performed or furnished by the **Contractor**, any Subcontractor or Supplier. The amounts of the commercial general liability insurance policy shall be as follows:

1.	Bodily Injury	$1,000,000 each occurrence
2.	Property Damage	$2,000,000 general aggregate, per project
3.	Products & Completed Operations	$1,000,000 annual aggregate
4.	Personal & Advertising Injury	$1,000,000 each occurrence
5.	Medical Expenses	$10,000

The commercial general liability policy shall include coverage relating to explosion, collapse, and underground property damage.

The **Contractor** shall also provide insurance coverage for bodily injury and property damage resulting from liability arising out of pollution related exposures such as asbestos abatement, lead paint abatement, tank removal, removal of contaminated soil, etc. The **City** shall be named as an additional insured and the amount of coverage shall be $1,000,000 per occurrence and $2,000,000 aggregate.

10.6.1.1 Claims under worker's compensation, disability benefits, and other applicable similar employee benefits acts; claims for damages because of bodily injury, occupational sickness or disease, or death of the **Contractor's** employees.

10.6.1.2 Claims for damages because of bodily injury, sickness or disease, or death of any person other than the **Contractor's** employees; claims for damages insured by personal injury liability coverage sustained (a) by any person as a result of an offense directly or indirectly related to the employment of such person by the **Contractor**, or (b) by any other person for any other reason; claims for damages because of injury to or destruction of tangible property wherever located, including loss of use resulting from any such injury or destruction.

10.6.1.3 Claims arising out of operation of laws for damages because of bodily injury or death of any person or for damage to property.

10.6.1.4 Claims for damages because of bodily injury or death of any person, or property damage arising out of ownership, maintenance, operation, use or loading and unloading of any owned, hired or non-owned motor vehicle used in the Work, including employee non-ownership use. The combined single limit shall be $1,000,000 and shall include a CA9948 Pollution Endorsement and shall name the **City** as an additional insured.

10.6.2 The **Contractor's** liability insurance shall include contractual liability coverage sufficient to cover to the **Contractor's** indemnification obligations under the Contract Documents. The **Contractor** agrees to pay on behalf of the **Official**, and to provide and pay a defense for all claims covered by the **Contractor's** obligations under the indemnification provisions.

10.6.3 The **Contractor's** liability insurance shall be endorsed to include the **City** as an additional insured, and the **Architect**, the **City's** and **Architect's** consultants, any of their subsidiaries or affiliates, and each of their respective directors, officers, shareholders, agents or employees as additional insureds. The insurance afforded to the **City** and those other parties shall be primary insurance, and neither the coverage nor the amount of insurance provided under the **Contractor's** policies shall be reduced or prorated by the existence of any other insurance applicable to any loss the **City** or those other parties may have sustained.

10.6.4 The **Contractor's** liability insurance shall remain in effect until the end of the Correction Period and at all times after that when the **Contractor** may be correcting, or removing and replacing *defective* Work. The Products and Completed operations insurance shall be maintained for two (2) years after final payment. Evidence of insurance shall be furnished to the **Official** upon request and no less frequently than yearly.

10.6.5 These requirements shall not be construed to limit the liability of the **Contractor** or his insurers. The **City** does not represent that the specified coverages or limits of insurance are sufficient to protect the **Contractor's** interests or liabilities.

10.6.6 If the **City** or the **Contractor** suffers injury or damage to person or property because of error, omission or act of the other,

any of the other's employees or agents or others for whose acts the other party is legally liable, claim will be made in writing to the other party within a reasonable time of the first observation of that injury or damage. This provision is not and shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or statute of repose.

10.7 The Owner's Liability Insurance:

10.7.1 The **Contractor** shall purchase and maintain owners' contractor's protective liability insurance specifically for and appropriate for the Work and which will provide protection for the **City** against those claims which may arise out of or result from operations under the Contract; or the **Contractor** shall be required to endorse the **Contractor's** commercial liability insurance to show that the limits of liability apply per project and per location. If the **Contractor** furnishes owner's and contractor's protective liability insurance, the parties designated in paragraph 10.6.3 shall be included as additional insureds by endorsement.

10.8 Property Insurance:

10.8.1 The **Contractor** shall purchase and maintain Property Insurance written on a Builders Risk "all risk" completed value completed Work and Work in progress insurance, or equivalent policy form, and shall include, without limitation, insurance against the perils of flood and earthquake, fire, physical loss or damage including theft, vandalism, malicious mischief, collapse, windstorm and demolition occasioned by enforcement of any applicable legal requirements covering the Work at the Site in the amount of its full replacement cost. The insurance shall include the interests of the **City**, **Contractor**, Subcontractors and Suppliers, **Architect** and the **City's** and **Architect's** consultants, all of whom shall be listed as additional insureds, and shall be endorsed to include damages, losses and expenses arising out of or resulting from any insured loss or incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers, architects, attorneys and other professionals). If not covered under the all risk insurance, the **Contractor** shall purchase and maintain property insurance on any Work stored on and off the site in transit when that Work is included in an Application for Payment. The property insurance may have a deductible not exceeding $25,000.00 which shall be borne by the **Contractor**, and shall comply with the requirements in paragraph 10.9.

10.8.2 If required in the Supplementary Conditions, the **Contractor** shall purchase and maintain boiler and machinery insurance and additional property insurance which will include the interests of the **City**, the **Contractor**, Subcontractors, the **Architect** and the **City's** and the **Architect's** consultants, all of whom shall be listed as additional insureds.

10.9 Waiver of Rights:

10.9.1 The **City** and the **Contractor** waive all rights against each other for all losses and damages caused by any of the perils covered by the insurance provided in response to paragraphs 10.6, 10.7 and 10.8 and any other insurance applicable to the Work and also waive all such rights against the **City**, and all other persons named as insureds or additional insureds in such policies for losses and damages so caused. Each Sub-agreement shall contain similar waiver provisions by the Subcontractor or Supplier in favor of the **City**, the **Architect**, and all other parties named as insureds or additional insureds. None of these waivers shall extend to the rights that any of the insured may have to the proceeds of insurance held by the **City** as trustee or otherwise payable under a policy so issued.

10.9.2 The **City** and the **Contractor** intend that any policies of insurance shall protect all of the parties insured and provide primary coverage for all losses and damages caused by the perils covered. Accordingly, all such policies shall be endorsed to provide that in the event of payment of any loss or damage the insurer will have no rights of subrogation or other recovery against any of the parties named as insured or additional insured, and if the insurers require separate waiver forms to be signed by the **Architect** or the **City's** and the **Architect's** consultants, the **City** will obtain separate waiver forms, and if such forms are required of any Subcontractor or Supplier, the **Contractor** will obtain them.

10.10 Receipt and Application of Proceeds:

10.10.1 Any insured loss under the policies of property insurance required by paragraph 10.8 will be adjusted with the **City** and made payable to the **City** as trustee for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of paragraph 10.10.2. The **City** shall deposit in a separate account any money so received, and shall distribute it in accordance with any agreement that the parties in interest may reach. If no other distribution agreement is reached the damaged Work shall be repaired or replaced, the monies so received applied for that purpose, and the Work and the associated costs covered by Change Order.

10.10.2 The **City** as trustee shall have power to adjust and settle any loss with the insurers, unless one of the parties in interest objects in writing within fifteen (15) days after the occurrence of loss to the **City's** exercise of this power. If an objection is made,

the **City** as trustee shall settle with the insurers pursuant to any agreement the parties in interest may reach.

10.11 Indemnification:

10.11.1 To the fullest extent permitted by law the **Contractor** shall assume the defense of and hold the **City**, **Architect**, their officers, agents and employees harmless from all suits and claims against them, or any arising from the use of any invention, patent or patent right, and by or from any act or omission or neglect for the **Contractor**, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.

10.11.2 For any and all claims against the **City** or the **Architect** or any of their officers, agents, or employees by an employee of the **Contractor**, and Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation of the **Contractor** shall not be limited in any way by any limitation of the amount or type of damages, compensation or benefits payable by or for the **Contractor** or any **Contractor** under Worker's Compensation Acts, disability benefit acts or other employee benefit acts.

10.11.3 To the fullest extent permitted by law the **Contractor** shall defend, indemnify and hold harmless the **City** and **Architect** from and against all claims for bodily injury, sickness, disease, or death, or injury to or destruction of property, including loss of use, which claims arise out of, relate to, or are in any way connected with: the Work; the failure of the **Contractor** or any Subcontractor to provide a safe work place; or noncompliance with Law by the **Contractor**, any Subcontractor or Supplier. With respect to all claims against the **City** or **Architect** by any employee of the **Contractor**, the indemnification obligation under this paragraph shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the **Contractor**, any Subcontractor or Supplier under worker's compensation, disability benefit or other employee benefit acts.

10.11.4 The obligations of the **Contractor** under paragraph 10.11.3 shall not extend to the liability of the **Architect** arising out of or resulting from (a) the preparation or approval of maps, drawings, opinions, reports, surveys, designs or specifications, or (b) the giving or failure to give directions or instructions by the **Architect**, but only if such giving or failure to give is the sole cause of the injury or damage.

10.11.5 The **Contractor** shall defend, indemnify and hold harmless the **City** and **Architect** from and against all claims as referred to in this paragraph, claims for damages to the Work itself, and claims for any other costs which any of them may incur arising from (a) failure, neglect or refusal of the **Contractor** to faithfully perform the Work and other obligations under the Contract Documents, or (b) the failure of the **Contractor**, any Subcontractor or Supplier to obtain or renew the insurance coverages required by the Contract Documents.

10.12 Partial Utilization-Property Insurance:

10.12.1 Any Partial Utilization by the **City** shall be subject to the insurers providing the property insurance having acknowledged receipt of notice and in writing effected the necessary changes in coverage. Those insurers shall consent by endorsement, but the property insurance shall not be canceled or lapse on account of any Partial Utilization.

10.13 Non-Conforming Bonds or Insurance:

10.13.1 If any of the **Contractor's** surety(ies) or insurer(s) is declared bankrupt, placed into receivership or otherwise becomes insolvent, or ceases to meet the requirements of the Contract Documents, or its license to do business in the Commonwealth is terminated, the **Contractor** shall at once substitute another bond and surety, or insurer and policy, which shall conform to the requirements of the Contract Documents.

10.14 Medical and Sanitary Requirements:

10.14.1 The **Contractor** shall promptly and fully comply with all sanitary and medical requirements as may from time to time be promulgated so that the health of all workers, local communities and persons residing on or near the Work may be preserved and safeguarded. The **Contractor** shall dismiss, and shall not rehire, any person who violates sanitary and medical requirements.

10.14.2 The **Contractor** shall rigorously prohibit the committing of nuisances upon the lands of the **City** or upon adjacent property. Structures for the sanitary necessities of all persons employed on the Work shall be provided and maintained by the **Contractor**.

10.14.3 As to health and sanitation, the **Contractor** shall promptly and fully comply with the Laws and Regulations of the State

Department of Public Health, and those of all other local Authorities. The **Contractor** shall provide all articles necessary for first aid, and he shall make proper and satisfactory provisions for the transportation of sick and injured employees to, and their care at, established hospitals in the vicinity of the Work.

10.15 Required Provisions, Chapter 30, §39R:

10.15.1 The **Contractor** shall make, and keep for at least six (6) years after final payment, books, records, and accounts which in reasonable detail accurately and fairly reflect the transactions and dispositions of the **Contractor**, and until the expiration of six (6) years after final payment, the Office of the Commonwealth's Inspector General and the Deputy Commissioner of Capital Asset Management and Maintenance shall have the right to examine any books, documents, papers or records of the **Contractor** or of any Subcontractor that directly pertain to, and involve transactions relating to, the **Contractor** or that Subcontractor. The **Contractor** shall describe any change in the method of maintaining records or recording transactions that materially affect any statements filed with the **Official**, and the date of the change and reasons for the change, and shall accompany the description with a letter from the **Contractor's** Independent Certified Public Accountant approving or otherwise commenting on the changes. The Contractor certifies that prior to executing the Contract, the **Contractor** has filed a statement of management of Internal Accounting Controls and an audited financial statement for the most recent completed fiscal year, and he will continue to file such statements annually.

10.15.2 The **Contractor** shall file with the **Official** a statement of management as to whether his and his subsidiaries system of Internal Accounting Controls reasonably assures that: (1) transactions are executed in accordance with management's general and specific authorization; (2) transactions are recorded as necessary (i) to permit preparation of financial statements in conformity with generally accepted accounting principles, and (ii) to maintain accountability for assets; (3) access to assets is permitted only in accordance with management's general or specific authorization; and (4) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any difference.

10.15.3 The **Contractor** shall also file with the **Official** a statement prepared and signed by an Independent Certified Public Accountant, stating that s/he has examined the statement of management of internal accounting controls and expressing an opinion as to whether: (1) the representations of management in response to this paragraph 10.15 are consistent with the result of management's evaluation of the system of internal accounting controls; and (2) such representations of management are, in addition, reasonable with respect to transactions and assets in amounts which would be material when measured in relation to the applicant's financial statements.

10.15.4 The **Contractor** shall annually, during the term of the Contract, file with the Deputy Commissioner of Capital Asset Management and Maintenance a financial statement prepared by an Independent Certified Public Accountant based on an Audit by that Accountant. The final statement filed shall include the date of final payment. All statements shall attach an Accountant's report, and shall be made available to the **Official** upon request.

10.15.5 Failure by the **Contractor** to satisfy any of the requirement of M.G.L. Chapter 30, §39R, or to comply with any such rules, regulations and guidelines as may be promulgated from time to time, may be grounds for debarment pursuant to M.G.L. Chapter 149, §44C.

10.15.6 Records and statements required to be made, kept or filed under these provisions shall not be public records as defined in M.G.L. Chapter 4, §7, and shall not be open to public inspection; provided, however, that such records and statements shall be made available as stated in paragraph 10.14.1.

10.16 No Conflict with Laws or Regulations:

10.16.1 The duties, obligations, criteria or procedures imposed by these General Conditions and the rights and remedies made available are in addition to, and not in any way a limitation of, any rights and remedies which are otherwise made available or imposed by Laws or Regulations, except that in the event a specific part or detailed requirement of a provision, criterion or procedure in these General Conditions and a specific part or detailed requirement of a provision, criterion or procedure imposed or available by Laws or Regulations conflict, the specific part or detailed requirement of such provision, criterion or procedure imposed or available by Laws or Regulations in conflict shall govern. All other specific parts or detailed requirements in the provisions, criteria or procedures of the applicable Laws or Regulations and these General Conditions not in conflict shall remain in full force and effect and be read with the controlling specific part or detailed requirement. 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.

10.17 Notice and Service:

10.17.1 Unless otherwise specified in the Contract Documents, any notice or communication shall be in writing, and shall be deemed to have been given as of the time of actual receipt.

10.17.2. Any notice or other communication to the **Contractor** shall be sufficiently given if delivered to the intended individual, officer or partner of the **Contractor** in person or at the office of the **Contractor** designated in the Contract.

10.17.3 All notices or other communication to the **Official** shall, unless otherwise specified in writing to the **Contractor**, be sufficiently given if delivered to the intended individual in person or at the office designated in the Contract.

ARTICLE 11 - CHANGES IN THE WORK

11.1 Changes in the Work:

11.1.1 Without invalidating the Agreement and without notice to any surety, the **City** may, at any time, by Change Order or Change Authorization signed by the **City**, order changes in the Work (a) consisting of additions, deletions or other revisions within the scope of the Work in the requirements of the Specifications and Drawings, the means, methods, techniques or sequences applicable to the Work, the **City**-furnished lands, equipment, materials, or services, or (b) directing acceleration of the Work, and unilaterally make or provide the basis for making an adjustment in Contract Price or Contract Time. Upon receipt of any such unilateral order, the **Contractor** shall promptly proceed or continue with the Work involved as directed. Any such unilateral adjustment in Contract Price or Contract Time made by Change Order, or authorized by Change Authorization, shall be final and binding on the **Contractor** unless the **Contractor** delivers to the **Official** written Notice of Claim, in strict compliance with all of the requirements of Article 15, within thirty (30) days after receipt of the unilateral order.

11.1.2 The **Official** reserves the right to negotiate with the **Contractor** changes under in the Work by delivering to the **Contractor** an unsigned Change Authorization describing the change under consideration and requesting that the **Contractor** submit a proposal for an adjustment in Contract Price or Contract Time.

11.1.3 Any other written or oral order from the **Official** or the **Architect**, including statement or conduct, instruction, interpretation, determination, or approval that causes a change shall be treated as a change in the Work; but only if the **Contractor** or the **Official** gives prompt written notice to the other by means of an unsigned Change Authorization detailing the circumstances, and the scope and character of the Work involved.

11.1.4 If after evaluation of an unsigned Change Authorization received under paragraph 11.1.3, the **Official**, with the advice of the **Architect**, concludes that changes in the Work have been ordered, the **Official** shall by Change Order or Change Authorization signed by the **City** correspondingly amend the Contract Documents. If the **Official**, on the other hand, concludes that a change has not been ordered, the **Official's** determination shall be final and binding on the **Contractor** unless the **Contractor** delivers to the **Official** written Notice of Claim that complies with Article 15 within thirty (30) days from receipt of that decision.

11.1.5 Except as provided in this paragraph, no written or oral order from the **Official** or the **Architect**, shall be treated as a change in the Work or entitle the **Contractor** to an increase in Contract Price or Contract Time under this paragraph.

11.1.6 Adjustments in Contract Price or Contract Time made necessary by changes in the Work ordered or negotiated under this paragraph shall be based on changes, as specified in Articles 7 and 12, in the **Contractor's** cost or the time required to perform any part of the Work, except that no increase in Contract Price or Contract Time shall be due under this paragraph if excluded by another provision of the Contract Documents.

11.1.7 No proposal nor claim by the **Contractor** on account of changes under paragraph 11.1.3 shall be allowed for any costs or delay incurred more than twenty (20) days before the **Contractor** gives written notice as required.

11.2 Changes Due to Differing Site Conditions:

11.2.1 If the **Contractor** or the **Official** discovers that the actual subsurface or latent physical conditions encountered at the Site differ materially from those shown or indicated on the Contract Documents, or from those ordinarily encountered and recognized as inherent in the Work of the character and scope provided, or that any reference points need correction to enable the **Contractor** to proceed with the Work, either the **Contractor** or the **Official** shall notify the other party in writing. A notice from the **Contractor** shall be delivered promptly and before the conditions are disturbed. A notice from the **Official** shall be delivered as soon as possible after the conditions are discovered.

11.2.2 Upon receipt or delivery of any such notice, the **Official** shall investigate the conditions. If the **Official** concludes that conditions on which the **Contractor** is entitled to rely do materially differ, the **Official** shall order the necessary changes and correspondingly adjust Contract Time or Contract Price, as provided in Article 12, unless excluded by another provision of the Contract Documents.

11.2.3 If the **Official** decides that the Contract Documents do not need amending or decides to make or not to make a change in Contract Price or Contract Time, or that a change in reference points is not required, any such decision shall be final and binding on the **Contractor** unless he delivers written Notice of Claim that complies with Article 15 within thirty (30) days of receipt of that decision.

11.2.4 Except in the case of newly-discovered underground utilities all costs involved and time required to perform the specified **Contractor's** responsibilities for underground utilities shall be considered as having been included in the Contract Price and in the **Contractor's** schedule for performing the Work within the Contract Time.

11.2.5 If Underground Utilities cause or will cause delays which postpone, extend or in any other manner alter the schedule or the completion of all or part of the Work, the **Contractor** shall assume all of the **Contractor's** related delay, extension or acceleration costs, however caused; except that, if the **Official** believes that the delays require a change in Contract Time, the **Official** shall authorize the necessary change in Contract Time only.

11.2.6 At least twenty (20) days, plus the time required by the **Contractor** to deliver a proposal shall be allowed to the **Official** to resolve any report of differing site conditions.

11.2.7 No proposal nor claim by the **Contractor** due to differing site conditions shall be allowed unless the **Contractor** has given written notice as required by this Article or Article 15.

11.3 Changes Due to Overruns or Underruns in Quantities:

11.3.1 For all Unit Price Work the Contract Price includes an amount equal to the sum of the unit prices Bid for each item of Unit Price Work times its estimated quantity. Each unit price will be deemed to include an amount sufficient to cover all costs, including supplemental and administrative costs, and profit. Prior to final payment, a Change Order will be issued as recommended by the **Architect** to reflect actual quantities for Unit Price Work, and to correspondingly adjust the Contract Price.

11.3.2 The **Contractor** shall promptly, before proceeding with any affected Work, notify the **Official** in writing whenever the actual quantity for a significant item of Unit Price Work, differs materially from its estimated quantity, and request a re-evaluation of that item's unit price or the Contract Time, or inform the **Official** that a re-evaluation is not warranted. Promptly after receipt of the notice, the **Architect** will review conditions about that item of Work and evaluate their effect on the unit prices and the Contract Time(s). If the **Official** consents to quantities so varying from those estimated, or does not make written objection, the **Contractor** shall proceed with the affected Unit Price Work as directed by the **Architect**.

11.3.3 If the **Official** determines that the additional or reduced quantities for such an item of Unit Price Work justify an adjustment in the unit price, or in Contract Time, or both, the **Official** shall authorize a revised unit price applicable to actual quantities for that item above one hundred twenty percent (120%) or below eighty percent (80%) of the estimated quantity, or a change in Contract Time, or both; except that, no adjustment shall be provided unless the variation between actual and estimated quantities for all Unit Price Work results in an increase or decrease in the Contract Price by more than ten percent (10%). If the **Official** decides that the unit prices are valid even for the additional or reduced quantities, or that no adjustment in the Contract Time is warranted, solely due to the variation in quantities, or both, that decision shall be final and binding on the **Contractor** unless he delivers to the **Official** a written Notice of Claim within thirty (30) days from receipt of that decision pursuant to the requirements of Article 15..

11.3.4 In evaluating unit prices, or changes in Contract Time due to quantity variations, the **Contractor** and the **Official** shall take into account increases or decreases in the **Contractor's** costs to perform the Work involved solely as result of the variation in quantities, as opposed to the **Contractor's** fault or negligence, errors in the **Contractor's** Bid, or other similar factors.

11.4 Change Orders; Change Authorizations:

11.4.1 A Change Order or Change Authorization executed by the **City** and also by the **Contractor** without a **Contractor's** notice of reservation of rights to claim additional adjustments constitutes an all inclusive settlement for all changes and for all direct, supplemental, indirect, consequential and cumulative costs and delays, including the Contractor's overhead and profit, and the **Contractor's** signature represents a waiver of any and all rights to file a claim on account of that instrument, the Work or the Work involved in that instrument and all prior Change Orders.

11.4.2 A Change Order or Change Authorization, signed by the **City**, and also by the **Contractor**, with a notice of reservation of rights to claim additional compensation, shall become final and binding on the **Contractor**, without consideration of his reservation of rights, unless the **Contractor** delivers to the **Official** a clearly marked written Notice of Claim within thirty (30) days after the date when a Notice of Claim on account of the Change Order or Change Authorization executed by the **City** becomes due in strict compliance with the requirements of Article 15, and in any event no later than thirty (30) days after the date the **Contractor** signs the Change Order containing a notice of reservation of rights to claim additional compensation.

11.4.3 The **City** and the **Contractor** shall sign Change Orders with reasonable promptness covering changes in the Work including

any necessary adjustments in Contract Price or Contract Time ordered or agreed to by the parties, changes in Contract Price or Contract Time which are agreed to in total or in part or previously executed Change Authorizations. Amounts for Work involved in a Change Order may be included in Application for Payment only after it has been completely executed by the **City**.

11.4.4 When signed by the **City**, the **City** may use Change Authorizations to order changes in the Work, provide the basis for a subsequent adjustment in Contract Price or Contract Time, order changes not warranting an adjustment in Contract Price or Contract Time, or authorize minor deviations. Amounts for Work involved in a Change Authorization are not allowable for payment until that Change Authorization has been incorporated into a Change Order that has been signed by the **Official**, approved as to form by the Corporation Counsel and approved to have a sufficient appropriation by the City Auditor.

11.4.5 The **City** reserves the right to decrease the adjustments made in any Change Order if, upon an audit of the **Contractor's** records including but not limited to records pertaining to all cost and pricing data used by the **Contractor** in estimating the **Contractor's Bid** for the work and in monitoring costs incurred, that audit reveals that the **Contractor** provided false or inaccurate cost and pricing data in negotiating that Change Order.

11.5 Deviations:

11.5.1 In accordance with M.G.L. Chapter 30, §39I, every **Contractor** having a contract for the construction, alteration, maintenance, repair or demolition of, or addition to, any public building or public works for the Commonwealth, or of any political subdivision thereof, shall perform all the work required by such contract in conformity with the Plans and Specifications contained therein. No willful and substantial deviation from said Plans and Specifications shall be made unless authorized in writing by the **Official** or by the **Architect** in charge of the work who is duly authorized by the **City** to approve such deviations. In order to avoid delays in the execution of the work, such deviation from the Plans and Specifications may be authorized by a written order of the **Official** or **Architect** so authorized to approve such deviation. Within 30 days thereafter, such written order shall be confirmed by a certificate of the **Official** stating: (1) if such deviation involves any substitution or elimination of materials, fixtures or equipment, the reasons why such materials, fixtures or equipment were included in the first instance and the reasons for substitution or elimination and, if the deviation is of any other nature, the reason for such deviation giving justification therefor; (2) that the specified deviation does not materially damage the Project as a whole; (3) that either the work substituted for the work specified is of the same cost and quality, or that an equitable adjustment has been agreed upon between the **Official** and the **Contractor**, and the amount in dollars of said adjustment; and (4) that the deviation in the best interest of the **City**. Such certificate shall be signed under the penalties of perjury and shall be a permanent part of the file record of the Work. Whoever violates any provision of this paragraph willfully and with intent to defraud shall be punished by a fine of not more than $5,000 or by imprisonment for not more than 6 months, or both.

11.6 Delay and Waiver Provisions:

11.6.1 At least twenty (20) days plus the time required by the **Contractor** to deliver a proposal shall be allowed to the **Owner** to negotiate and resolve any changes in the Work, any changes in unit prices or any report of differing site conditions.

11.6.2 If a change in the Work, a case of differing site conditions or a case of variation in quantities causes or will cause delay, extension or acceleration that postpones, extends or in any other manner alters the schedule or completion of all or part of the Work, the **Official** shall, pursuant to Articles 8 and 11, make or negotiate with the **Contractor**, an adjustment in Contract Price or Contract Time for any increase in the **Contractor's** cost or the time required to perform the Work. The **Contractor** assumes responsibility for any related delay, extension or acceleration caused by or resulting to the **Contractor**.

11.6.3 No proposal nor claim by the **Contractor** on account of changes in the Work, differing site conditions or variation in quantities shall be allowed if made after final payment.

ARTICLE 12 - CHANGES IN CONTRACT PRICE OR CONTRACT TIME

12.1 Changes in Contract Price or Contract Time:

12.1.1 The Contract Price or Contract Time shall be changed only by Change Order. The basis for a subsequent change in Contract Price or Contract Time may also be authorized by a Change Authorization signed by the **Official**.

12.1.2 Contract Time whether stated in the Agreement or changed by Change Order shall not be changed due to a delay in a **Contractor's** early completion date until all Contract Float is used and performance of the specified Work extends necessarily beyond that Contract Time.

12.1.3 Contract Price whether stated in the Agreement or changed by Change Order shall not be changed due to a delay in a **Contractor's** early completion date until half of the Contract Float available in the Progress Schedule at the time of the start of the delay is used and performance of the specified Work is necessarily extended.

12.2 Proposals or Claims Substantiating Adjustments:

12.2.1 All **Contractor** proposals must at a minimum contain the reasons for the proposed change; the effect of the proposed change on the Progress Schedule; the effect on the Contract Time and the proposed price for the change, all in sufficient detail to be evaluated by the Official. All **Contractor** proposals shall be due within twenty (20) days after receipt of the **Official's** written notice requesting a proposal or delivery to the **Official** of the **Contractor's** written notice of the occurrence of an event which the **Contractor** believes justifies a change in Contract Price or Contract Time. Any delay in the submittal of a **Contractor's** proposal will not justify or constitute basis for an increase in Contract Price or Contract Time. Proposals shall not be subject to change for at least sixty (60) days from their receipt by the **Official**. If no Contractor proposal has been received by the **Official** within the twenty (20) day period allowed by this Article, or if the **Contractor's** proposal does not contain the information required, then the **Official**, in his sole discretion, will use any of the methods described in Article 12.3 to determine the adjustment, if any, in the Contract Price.

12.2.2 Contractor proposals shall cover all aspects of the Work involved, and shall be fully documented and itemized as to all costs, as specified in this Article, quantities, and Fee which shall segregate percentages for profit and administrative costs. Proposals shall certify in writing that the amounts would be or were necessarily incurred despite reasonable mitigation efforts. Amounts for Subcontractors or Suppliers shall be equally supported, and must be reviewed by the Contractor before being submitted to the **Official**.

12.2.3 Where the change in Contract Price arises from changes in the time required to perform any Work, or where a change in Contract Time is sought, the **Contractor's** itemized estimates shall in addition detail all productivity and production data, and include a detailed analysis of the Progress Schedule.

12.3 Methods for Determining Adjustments in Contract Price:

12.3.1 The methods to be used to determine an adjustment in Contract Price necessitated by changes ordered or under negotiation, delay ordered, caused or under negotiation or Work covered by any proposal or claim, all pursuant to these General Conditions are referred to collectively as "the Work involved", and are limited to the following:

12.3.2 Where the Work involved is covered by lump sum prices or unit prices in the Contract Documents, on the basis of those lump sum prices or unit prices, respectively;

12.3.3 Where the Work involved is not covered by lump sum prices or unit prices, by mutual acceptance of a lump sum price negotiated on the basis of the **Contractor's** itemized good faith estimate of the anticipated cost of the Work involved as specified in this Article plus a fee for the Work involved calculated per paragraph 12.11;

12.3.4 Where the Work involved is not covered by either of the first two methods, and **Official** and the **Contractor** cannot agree, on the basis of the **Official's** estimate of the cost of the Work involved plus a fee for the Work involved of eighty-five percent (85%) of the maximum fee allowed in paragraph 12.11;

12.3.5 Where the **Official** and the **Contractor** cannot agree, and the **Official** directs the **Contractor** to proceed with the Work involved with payments to be made per actual costs, on the basis of an itemized breakdown of the actual cost of the Work involved as specified in this Article plus a fee for the Work involved of seventy percent (70%) of the maximum fee allowed in paragraph

12.11. Where the Official and the Contractor agree and the Official directs the Contractor to proceed with the Work involved with payment to be made per actual costs on a time and materials basis, on the basis of an itemized breakdown of the actual cost of the Work involved as specified in this Article, plus a fee for the Work involved of one hundred percent (100%) of the maximum fee allowed in paragraph 12.11;

12.3.6 Where the Work involved is not covered by any of the preceding methods, and if payment is to be determined by a court of competent jurisdiction and appropriate venue, it is agreed that the actual cost and fee methods in paragraph 12.3.5 shall be the only appropriate method for determining the cost and the fee of the Work involved.

12.3.7 In computing the cost of the Work involved, costs shall be in amounts no higher than those prevailing in the locality of the Project, and include only the appropriate items for labor, material or equipment, construction equipment, and supplemental costs specified in this Article.

12.4 Labor, Subcontract and Material/Equipment Costs:

12.4.1 The cost of the Work involved includes payroll costs for craft labor including foremen in the direct employ of the **Contractor** assigned to the site and engaged in furnishing and incorporating materials or equipment in the Work involved. Payroll costs shall include wages at the minimum wage rates for Contractor's personnel established for this Contract pursuant to M.G.L. Chapter 149, §§ 26-27H plus labor burdens, e.g. social security, unemployment, workers' compensation, health and retirement benefits, vacation and holiday pay, etc. When determining actual payroll costs per paragraph 12.3.5, daily time sheets certified by the **Contractor** and verified by the **Architect** will be the record upon which payroll costs shall be based. When determining actual payroll costs per paragraph 12.3.6, daily time sheets shall be valid only if they expressly correlate to the Work involved, and if developed when the Work involved was performed for the purposes of establishing payroll.

12.4.2 The cost of the Work involved includes payments by the **Contractor** to Suppliers for material and equipment used in the Work involved, including transportation, storage, and necessary Supplier's field services. All trade discounts, rebates and refunds and all returns from sale of surplus items shall accrue to the **Official**, and the **Contractor** shall make provisions so that they may be obtained. If required by the **Official**, the **Contractor** shall obtain bids for designated items of materials or equipment and nominate at least two (2) suppliers for selection by the **Official**. When determining actual material and equipment costs, invoices segregating items associated with the Work involved shall be the record upon which to base actual costs.

12.4.3 The cost of the Work involved includes payments made by the **Contractor** to Subcontractors for the Work involved performed by the Subcontractors. When determining Subcontractors' cost of the Work involved, the methods to be used shall be those used to determine the **Contractor's** costs, except that the term "Subcontractor" shall replace the term "the **Contractor**" if the context will permit. If required by the **Official**, the **Contractor** shall obtain detailed competitive sub-bids and nominate at least two (2) Subcontractors for the performance of any Work involved, subject to selection by the **Official**.

12.5 Construction Equipment Costs:

12.5.1. The cost of the Work involved includes costs for individual construction equipment with replacement value in excess of $500.00. Transportation, loading and unloading, installation, dismantling and removal costs shall be allowed only if prior consent is obtained from the **Architect**, and if the equipment is or was transported to the site solely for the Work involved. Shipping costs will be allowed if the equipment requires the use of a carrier, and provided the travel distance does not exceed that for similar equipment available from sources in the Boston metropolitan area. When multiple attachments are used, only the highest cost attachment shall be recoverable. Equipment costs shall cease when the equipment is no longer needed for the Work involved. Payroll costs for labor operating the equipment shall be as in paragraph 12.4.1. Equipment costs shall be computed using the same accounting and estimating rules, and prices, whether related to added or deleted items of Work.

12.5.2. When determining actual equipment costs under paragraph 12.3.5, daily records listing the equipment, operators, and actual usage, and verified by the **Architect** shall be the records upon which costs will be based. When determining actual equipment costs under paragraph 12.3.6, similar daily records shall be valid only if developed when the Work involved was performed.

12.5.3. Rented or owned equipment at the site, idled solely by actions of the **Official** or the **Architect**, shall be paid at the rates for rented equipment, or on the basis of fifty (50%) percent of the rates for owned equipment, respectively, provided that the idle period exceeds that normally experienced for such equipment and occurs during normal working hours.

12.6 Rented or Leased Equipment:

12.6.1. Except as provided below, for equipment rented or leased, the **Contractor** or Subcontractors shall be entitled to amounts based on negotiated rental or lease rates, but in no event shall the amounts exceed the rates listed in the Rental Rate "Blue Book"

published by Equipment Watch, Inc. for the region covering the Boston metropolitan area applicable to that equipment model number and year. The equipment rate for second or third shifts shall not exceed fifty percent (50%) of the base rate. Operating costs shall not exceed the hourly operation rate in the Blue Book. Hourly rates for equipment previously in use at the site for at least a month (or a week) shall be based on the monthly rate divided by 176 hours (or the weekly rate divided by 40 hours). Equipment not previously in use at the site shall not be billed to the **Official** at rates higher than:

Equipment Usage	Payment Category
Less than 8 hours	Hourly Rate
1 day but less than 7 days	Daily Rate
1 week but less than 30 days	Weekly Rate
30 days or more (when in use)	Monthly Rate

12.6.2 For equipment rented or leased from firms associated with or owned by the **Contractor**, costs shall be treated as though the equipment was owned equipment.

12.7 Owned Equipment:

12.7.1 For equipment owned by the **Contractor**, or by his affiliates, the **Contractor** shall be entitled to costs based on billings established by his normal accounting practices, but in no event shall those costs exceed the rates listed in the Custom Cost Evaluator published by Equipment Watch, Inc. for the region covering the Boston metropolitan area. The owned equipment hourly rate plus the estimated operation cost per hour from the Custom Cost Evaluator will be the basis for determining owned equipment costs. For shift Work, the equipment rate shall not exceed the shift Work hourly costs in the Custom Cost Evaluator.

12.8 Supplemental Costs:

12.8.1 The cost of the Work involved includes a proportion of necessary supplemental costs, to the extent those supplemental costs increase or decrease on account of (a) labor, material/equipment, Subcontract or equipment costs of the Work involved, or (b) an extension in Contract Time, including:

12.8.1.1 Payroll costs, and subsistence expenses, for the **Contractor's** full-time resident superintendent, and payroll costs for other personnel in the employ of the **Contractor** engaged in Site activities and listed in the schedule of indirect personnel classifications agreed to by the **Official**, if those costs arise solely from an extension in Contract Time.

12.8.1.2 Costs not exceeding two percent (2%) of the labor costs under paragraph 12.4.1 excluding burdens of field supplies consumed in the performance of the Work involved, and purchase costs not exceeding two percent (2%) of the labor costs under paragraph 12.4.1, less burdens; tools individually valued at less than $500.00 and not owned by the workers which are used and consumed in the performance of the Work involved, and purchase cost less market value if used but not consumed.

12.8.1.3 Costs of office and temporary facilities at the site, inclusive of materials, supplies, equipment and appliances, if those costs arise solely from an extension in Contract Time;

12.8.1.4 The costs of utilities, fuel and sanitary facilities, long distance telephone calls, telephone service at the site, if those costs arise solely from an extension in Contract Time;

12.8.1.5 Costs of consultants or Subcontractors not covered under paragraph 12.4.3; provided those costs were authorized by the **Official** prior to proceeding with the Work involved, and if not covered by paragraph 12.4 or are not excluded by paragraph 12.11.

12.8.1.6 Taxes related to the Work involved, and for which the **Contractor** is liable, and fees for permits and licenses, if they related solely to the Work involved.

12.8.1.7 Physical losses, damages and expenses to the Work involved not compensated by property insurance or otherwise, sustained by the **Contractor** in the performance and furnishing of the Work, except losses and damages within the deductible amounts of property insurance, but only if the losses, damages and expenses result from causes beyond the control and not due to the fault or negligence of the **Contractor**.

12.8.1.8 The actual documented cost of premiums for increases in bonds and insurance required solely because of the Work

involved will be paid based on invoices from the surety.

12.9 Limitation on Equipment and Supplemental Costs:

12.9.1 The **Contractor** shall not be allowed to recover construction equipment or supplemental costs not attributable to the performance of the Work involved. Payroll costs for the full-time resident superintendent are an example of costs that are not recoverable.

12.10 Costs Covered by the Fee for the Work Involved:

12.10.1 The Cost of the Work involved shall not include any of the following costs that are considered administrative costs or contingencies covered by the Fee for the Work involved:

12.10.1.1 Payroll costs and other compensation of (a) the **Contractor's** executives, general and administrative managers, project managers, estimators, claim consultants, attorneys, accountants, labor relation coordinators, contract and subcontract administrators, purchasers, expeditors, and other administrative staff, whether employed at the site or in his principal or branch offices, and (b) construction managers, engineers, schedulers, detailers, architects, safety personnel, clerks and other administrative staff employed in his principal or branch offices;

12.10.1.2 The market value of small tools used but not consumed.

12.10.1.3 Any part of the **Contractor's** capital expenses, including interest on capital for the Work involved, lost interest, on unpaid retainage, and charges for delinquent payments.

12.10.1.4 Costs associated with the preparation of Change Orders or Change Authorizations whether or not ultimately authorized by the **Official**, or the preparation or filing of claims.

12.10.1.5 Costs of consultants or attorneys, in the direct employ of the **Contractor** or otherwise, utilized for services related to the Work.

12.10.1.6 Other administrative expense(s), lost profits, lost interest on unpaid retainage, and the costs of any item not specifically and expressly included in this Article 12.

12.10.1.7 Expenses of the **Contractor's** principal and branch offices, including, but not limited to storage and yard facilities.

12.11 Fee for the Work Involved:

12.11.1 Any adjustment in Contract Price for Work involved shall also include a Fee for costs under paragraph 12.10 and negotiated profit, shall not exceed the following amounts:

12.11.1.1 For Work involved performed by the **Contractor**, the **Contractor's** Fee shall not exceed fifteen percent (15%) of the Cost of the Work involved, less supplemental costs. For Work involved performed by a Subcontractor, the Subcontractor shall receive a Fee of ten percent (10%) of the Cost of the Work involved, less supplemental costs.

12.11.1.2 In addition to the Fee(s) specified in paragraph 12.11.1.1, for Work involved that is performed by Subcontractors, the **Contractor** shall receive a mark-up Fee of five percent (5%) of the performing Subcontractors' costs. No Fee shall be payable to the **Contractor** on the basis of the performing Subcontractors' Fee or supplemental costs.

12.11.1.3 The credit to be allowed to the **City** for any adjustment in Contract Price yielding a net decrease in cost, *i.e.* the cost of the Work involved is negative, shall be the amount of the net decrease together with a Fee credit equal to one-third of the Fee which would be allowed under paragraphs 12.11.1.1 and 12.11.1.2.

12.11.1.4 When more than one individual adjustment in Contract Price, each resulting in a net increase or decrease in the Cost of the Work involved, is covered in one specific Change Order or Change Authorization or proposal or claim, the combined Fee shall be computed as the sum of the individual Fees.

12.12 Payment for Extension in Contract Time:

12.12.1 Subject to the applicable requirements of the Contract Documents, an extension in Contract Time may be combined with an increase in Contract Price to cover costs solely associated with the time extension in the case of changes in the Work, differing

site conditions, or significant variation in quantities. No such adjustment in Contract Price shall be made to the extent that performance would have been extended by any other cause, including fault or negligence of the **Contractor**, Subcontractors, or Suppliers, or for which an adjustment is excluded by any other provision of the Contract Documents.

12.12.2 The cost of the Work involved arising from an extension in Contract Time, shall exclude amounts not solely related to the extension in Contract Time, such as: operating costs of construction equipment assigned to the Work on a continuing basis but primarily used in the furnishing and incorporating of materials and equipment into the Work; owned, or rental, costs plus operating costs of construction equipment used solely in the furnishing and incorporating of materials or equipment into the Work such as crane costs for specific lifts and concrete pump truck costs; supplemental costs unaffected by the increase in Contract Time, or otherwise allocable to Work other than the Work involved e.g. small tools, site facilities fully paid for in previous payments, etc.

12.12.3 If delays entitling the **Contractor** to increase in Contract Price under the Contract Documents extend performance or completion of the entire Work beyond the Contract Time stated in Article 4 of the Owner-Contractor Agreement and if, upon a request from the **Contractor**, the **City** concludes that because of such extension a portion of the **Contractor's** costs itemized in paragraph 12.10 will be or were unabsorbed prior to the expiration of the Contract Time, the **Contractor** shall be allowed Fee to cover any such unabsorbed costs given by the portion of the Contract Price unbilled prior to the expiration of the Contract Time times the ratio of the **Contractor's** administrative costs to billings, not to exceed five percent (5%).

12.12.4 The **Contractor** shall not recover from the **City**: acceleration costs to keep progress despite **City**-caused delays or other delays which warrant extensions in Contract Time but exclude increases in Contract Price; escalation costs for any part of the Work not delayed beyond the Late Dates in the Progress Schedule; or delay costs not expressly allowed for in this Article.

12.13 Criteria for Determining Adjustments in Contract Time:

12.13.1 The criteria to be used to determine an adjustment in Contract Time necessitated by changes ordered or under negotiation as provided in these General Conditions, or Work covered by a proposal or a claim, are limited to the following:

12.13.2 An adjustment in a specified Contract Time will not be granted unless (a) the time required to perform or complete the furnishing or performance of Work controlling achievement of that particular Contract Time is extended pursuant to paragraph 12.13.3, and (b) all of the Total Float, and therefore Contract Float, in the Progress Schedule is used and consumed.

12.13.3 An extension in Contract Time will not be granted unless the **Contractor** can demonstrate through an analysis of the Progress Schedule that unforeseeable causes beyond the control and without the fault or negligence of both the **Contractor** and the Subcontractors or Suppliers led to performance or completion of all or part of the Work beyond the corresponding Contract Time despite the **Contractor's** reasonable and diligent actions. Examples of such causes include: (1) acts of God or of the public enemy; (2) acts of the **City** in its sovereign or contractual capacity; (3) acts of the U.S. Government or another Public Authority or Agency; (4) acts of another party in the performance of a contract with the **City**; (5) fires, floods, epidemics, quarantine restrictions; (6) incidents with archaeological features; (7) strikes, freight embargo; (8) unusual weather and related adverse subsurface conditions, unusual meaning expectation, frequency, severity, or unseasonable; (9) a case of differing site conditions or differing reference points; (10) a case of an emergency; (11) a case of a reasonable objection to a nominated Subcontractor; (12) unusually severe shortages of construction materials from such causes as area-wide shortages, an industry-wide strike, or a natural disaster affecting all feasible sources of supply; (13) variation in quantities of Unit Price Work as provided in Article 11; (14) delays, as itemized in this paragraph, to Subcontractors or Suppliers arising from unforeseeable causes beyond the control and without fault or negligence of both the **Contractor** and those Subcontractors or Suppliers; (15) work stoppages caused by or initiated by other **City** or public agencies.

12.13.4 An extension in Contract Time, if any granted, shall be the **Contractor's** sole and exclusive remedy for any delay, disruption, interference, or hindrance and associated costs, however caused, resulting from causes contemplated in paragraph 12.13.3.

12.14 Negotiating Changes in Contract Price or Contract Time:

12.14.1 In addition to the notice requirements in Articles 7 and 11, the **Contractor** shall give written notice to the **Official** of any written or oral order of the **Official** or the **Architect** which justifies a change in Contract Price or Contract Time by delivering a proposed Change Authorization itemizing in sufficient detail the related circumstances and the justification for the adjustments proposed. If the **Official,** with the advice of the **Architect**, concludes that a change in Contract Price or Contract Time is warranted, the **City** shall make or negotiate with the **Contractor** the appropriate adjustments. If the **Official** finds otherwise, the **Official's** decision shall be final and binding on the **Contractor** unless the **Contractor** delivers to the **Official** a clearly marked written Notice of Claim within thirty (30) days from receipt of that decision in strict compliance with the requirements of Article

15.

12.14.2 The **Official** may notify the **Contractor** of proposed changes in Contract Price or Contract Time by delivering to the **Contractor** an unsigned Change Authorization requesting that the **Contractor** signoff on the proposed changes in Contract Price or Contract Time or submit an alternate proposal.

12.14.3 If the **Official** makes the decision to order any changes in Contract Price or Contract Time, whether unilaterally or in negotiations with the **Contractor**, those changes in Contract Price or Contract Time shall be binding on the **Contractor**, unless the **Contractor** delivers to the **Official** clearly marked written Notice of Claim within thirty (30) days from receipt of that decision in strict compliance with the provisions of Article 15.

12.14.4 If the **Contractor** is directed or ordered to stop the Work, or any part of the Work by any **City** or public agency, other than the **Official** the **Contractor** is required to so inform the **Official** within four (4) hours of such action.

ARTICLE 13 - GUARANTEES

13.1 General Guarantees:

13.1.1 In consideration of the execution of this Contract by the **City** and the Contract Price herein stipulated to be paid and received for the performance of the work, the **Contractor** binds and obligates himself and agrees to bring all portions of the Work under this Contract to completion in accordance with the Contract Documents and within the Contract Time, free of all defects of material and workmanship, and guarantees that the Work shall remain free of all defects of material and workmanship for a period of one year from the date of Substantial Completion. The **Contractor** guarantees, on written notice from the **Official**, to immediately repair and make good, or cause to be repaired and made good, at the **Contractor's** expense, all defects of material or workmanship in the Work and to pay for or cause to be paid for any damage to other work resulting therefrom, or from the repair thereof which may develop during the period of one year from the date of Substantial Completion.

13.1.2 Warranties for all specified or substitute items of materials and equipment shall include a certification endorsed by the **Contractor** warranting their merchantability, and that they are functionally suitable and fit for their intended purpose.

13.1.3 The warranties, guarantees and obligations for correction of Work specified in this Article are in addition to and not in limitation of any other specific remedies provided in the Contract Documents or by Laws or Regulations.

13.2 Tests and Inspections:

13.2.1 The **Official**, the **Architect**, their representatives, testing agencies and Public Authorities or Agencies with jurisdiction shall be permitted access to the Work for their observation, inspection and testing. The **Contractor** shall provide proper and safe conditions for such access. The **Contractor** shall give the **Architect** and **Clerk of the Works** timely notice of readiness of, and access to, the Work for all required inspections, tests, or approvals. Test, inspections or approvals shall not in any way relieve the **Contractor** from his obligations to perform the Work in accordance with the Contract Documents, or to warrant and guarantee the Work as provided in the Contract Documents.

13.2.2 Deleted in its Entirety.

13.2.3 If a Public Authority or Agency enforces testing, inspection or approval differing from those specified, or if not specified, from those enacted on or before the date of Bid opening, necessitating an amendment to the Contract Documents, the **Official** shall authorize the required changes in the Work, together with any adjustment in Contract Price necessitated by the changes. If the Changed testing, inspection or approval causes or will cause delays which postpone, extend or in any manner alter the schedule or the completion of all or part of the Work, the **Contractor** shall absorb all of the **Contractor's** related delay, extension or acceleration costs, however caused; except that if the **Official** and the **Contractor** believe that the delays require a change in Contract Time, the **Official** shall authorize the necessary change in Contract Time **only**.

13.2.4 If any testing, inspection or approval reveals failure of any part of the Work, the **Contractor** shall not be allowed to recover any associated costs, and he shall reimburse the **Official** for all of direct, indirect and consequential costs made necessary by that failure including those of repeated procedures and compensation for the **Architect's** services.

13.2.5 Tests, inspections or approvals shall not in any way relieve the **Contractor** from the **Contractor's** obligations to perform the Work in accordance with the Contract Documents and to warrant and guarantee the Work as provided in the Contract Documents

13.3 Special Guarantees:

13.3.1 It is expressly agreed and understood that the general guarantee set forth under this Article is in addition to and not in substitution of such guarantees as may be required under any other Section of the Contract Documents.

13.3.2 All guarantees required in the Contract Documents, including those which originate with any Subcontractor, Supplier or other person, shall be in the form set forth by the **Official** and must be delivered to the **Official** before final payment to the **Contractor** will be made.

13.3.3 The **Contractor** and Subcontractors shall be jointly and severally liable to the **City** under the terms of all guarantees originating with any Subcontractor.

13.3.4 The failure to deliver a required guarantee shall be held to constitute a failure of the **Contractor** or Subcontractor to fully complete his work in accordance with the Contract Documents.

13.3.5 The period of all special guarantees, unless otherwise specified, shall be one year from the date of Substantial Completion.

13.4 Correction or Removal, or Acceptance of Defective Work:

13.4.1 If required by the **Official** or **Architect**, the **Contractor** shall promptly, as directed, either correct all *defective* Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by the **Architect** or if any testing, inspection or approval of all or part the Work reveals failure of that part of the Work to comply with the requirements of the Contract Documents, remove it from the site and replace it at the **Contractor's** expense. If, instead of requiring correction or removal and replacement of *defective* Work, the **Official** prefers to accept it, the **Official** may do so, in which case the **Contractor** shall not be entitled to any increase in Contract Time or Contract Price, and he shall reimburse the **City** for all direct, indirect and consequential costs of the **City** incurred because of the correction or removal of or due to the **City's** evaluation and determination to accept *defective* Work.

13.4.2 If the **Official's** acceptance of *defective* Work occurs prior to the **Architect's** recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents; and the **City** shall be entitled to an appropriate decrease in the Contract Price. If the acceptance occurs after that recommendation, an appropriate amount shall be deducted from the final payment, or if the final payment has been made, an appropriate amount shall be paid by the **Contractor** to the **City**.

13.5 The City May Correct Defective Work:

13.5.1 If the **Contractor** fails within a reasonable time after written notice of the **Architect** to proceed to correct *defective* Work or to remove and replace rejected Work as required by the **Architect**, or if the **Contractor** fails to perform the Work in accordance with the Contract Documents, or if the **Contractor** fails to comply with any other provision of the Contract Documents, the **Official** may, after seven (7) days' written notice to the **Contractor**, correct and remedy any such deficiency. To the extent necessary to complete corrective action, the **Official** shall have full power and authority to exclude the **Contractor** from all or part of the site, and to exercise all of the rights and remedies in paragraph 14.1 The **Contractor** shall allow the **Official**, the **Official's** representatives, agents and employees whatever access to the site that may be necessary to enable the **Official** to exercise the rights and remedies under this paragraph. The **Contractor** shall not be allowed an extension in Contract Time or increase in Contract Price because of any delay in performance of the Work attributable to the exercise by the **City** of these rights and remedies, and he shall reimburse the **City** for all direct, indirect and consequential costs of the **City** in exercising such rights and remedies, such costs to include, but not be limited to, all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of defective Work, and a Change Order will be issued incorporating the necessary changes.

13.6 Uncovering Work:

13.6.1 If Work that is to be observed by the **Architect** or inspected, tested or approved is covered without written concurrence or contrary to the written request of the **Official** or the **Architect**, it shall when requested by the **Official**, be uncovered, exposed or otherwise made available for observation, testing, inspection or approval, as the **Official** may require and if necessary, replaced at the **Contractor's** expense.

13.6.2 The **Contractor**, at the **Architect's** request, shall uncover, expose or otherwise make available for observation, inspection or testing as the **Architect** may require, any covered Work if the **Architect** considers it advisable that such covered Work be observed by the **Architect** or inspected or tested by others.

13.6.3 The **Contractor** shall not be entitled to an increase in Contract Price or Contract Time, and he shall reimburse the **City** for all direct, indirect and consequential costs incurred by the **City** due to any uncovering or exposure, including but not limited to, the costs of that uncovering or exposure, observation, inspection, testing and satisfactory reconstruction, whenever Work covered without the written concurrence or contrary to the written request of the **Architect** or **Official** under paragraph 13.6.1 is uncovered, or whenever covered Work uncovered at the **Architect's** request under paragraph 13.6.2 is found to be *defective.* If Work is uncovered or exposed under paragraph 13.6.2 and not found to be *defective,* the **Contractor** shall be entitled to an increase in Contract Price or Contract Time, either or both, directly attributable to such uncovering.

13.7 Correction Period:

13.7.1 The Correction Period shall commence on the date of Substantial Completion of the Work, or a later date if so specified in the Contract, and last for one (1) year or such a longer period of time as may be specified in the Contract Documents.

13.7.2 If within the designated Correction Period, the Work, or any part of the Work is discovered to be *defective*, the **Contractor** shall promptly, without an adjustment in Contract Price and in accordance with the **Official's** written instructions, either correct that *defective* Work, or if it has been rejected by the **Official**, remove it from the site and replace it with *non-defective* Work. If circumstances warrant it, including, but not limited to, in an emergency, the **Official** may have the *defective* Work corrected or the rejected Work removed and replaced. In that event, the **Contractor** shall not be allowed to recover any associated costs, and he shall reimburse the **City** for all of the **City's** reasonable direct, indirect and consequential costs so incurred. If that event takes place after final payment and the **Contractor** fails to pay such costs to the **City** within thirty (30) days after presentation for payment, the **City** will give written notice to the **Contractor** of a claim, in which case the provisions of Article 15 shall apply.

13.7.3 The specified warranties and guarantees and the **Contractor's** obligations for correction of Work specified in this Article are in addition to and not in limitation of any other specific remedies provided in the Contract Documents or by Law. Nothing contained in this paragraph or this Article shall be construed as establishing a period of limitation for or limiting the obligations of the **Contractor** under the Contract Documents.

13.8 Extended Warranties and Guarantees:

13.8.1 Following written notice to the Contractor, the **City** may in its sole discretion advance or defer the date for commencement of the Correction Period, in which case the **Contractor** shall maintain the warranties and guarantees until the revised date for commencement of the Correction Period. If such advancement or deferral in the date for commencement of the Correction Period causes an increase or decrease in the cost of the warranties and guarantees provided by the **Contractor**, the **Official** shall make an adjustment in Contract Price or Contract Time, as provided in Articles 8 and 11.

13.8.2 Whenever the **City** undertakes Partial Utilization of a portion of the Work which was specifically identified in the Contract Documents, or the **Contractor** fails to complete the Work or a separable portion of the Work within the corresponding Contract Time and the **City** undertakes Partial Utilization under paragraph 7.4, the **Contractor** shall maintain the warranties and guarantees in full force and effect during the period between the applicable commencement of Partial Utilization date, and the date of commencement of the Correction Period, and for such maintenance of the warranties and guarantees the **Contractor** shall receive no adjustment in Contract Price.

13.8.3 Any *defective* Work that is either corrected or rejected and replaced will be warranted and guaranteed in accordance with the provisions of this Article 13 for a period of one (1) year from the date of such correction or removal and replacement. If within such extended Correction Period, that Work is once again found to be *defective*, the **City** may exercise any of the **City's** rights and remedies under this Article.

13.9 Special Maintenance Requirements:

13.9.1 In special circumstances where the Work, or a designated part, progresses to Substantial Completion or Partial Completion but is not placed in continuous service until the commencement of the Correction Period, the **Contractor** shall maintain the Work, or designated part, in good order an in proper working condition and take all other actions as are necessary for its protection during the period between the applicable Substantial or Partial Completion date and the date of commencement of the Correction Period, and for such maintenance the **Contractor** shall receive no adjustment in Contract Price.

13.9.2. If the Work suffers loss or damage, however caused, the **Contractor** shall rebuild, repair, restore and make good without an increase in Contract Price all losses or damages to any portion of any Work. The occurrence of **City**-caused delay or the granting of an extension in Contract Time for any cause shall not relieve the **Contractor** of his responsibility for the Work, or designated part, as specified in this paragraph.

ARTICLE 14 - TERMINATION

14.1 Notice of Intention to Terminate for Cause:

14.1.1. If at any time reasonable doubt of the **Contractor's** due performance arises, the **Official** may demand adequate, written assurance of due performance. In addition, the **Official**, acting on knowledge or belief, may include with the demand for assurance a written notice to the **Contractor** and surety of the **City's** intent to terminate the **Contractor's** right to complete the Work within seven (7) days, or sooner if safety to persons or property is in question, because of occurrence of any of the following events, which constitute lack of due performance and are reasonable grounds for terminating the **Contractor**.

14.1.1.1 The **Contractor** fails to complete the Work, or separable part, within the corresponding Contract Time; fails or refuses to prosecute the Work, or separable part of the Work, with the diligence required for completion within the corresponding Contract Time; or fails or refuses to supply sufficient skilled workers, materials or equipment in adherence to the Progress Schedule, as revised from time to time;

14.1.1.2 The **Contractor** admits in writing, or the **City** otherwise establishes, the **Contractor's** inability to pay his debts generally as they become due; or in response to the **City's** demand, fails to promptly provide adequate, written assurance, the adequacy of which the **City** shall be the sole judge, of due performance in accordance with the Contract Documents;

14.1.1.3 A trustee, receiver, custodian or agent of the **Contractor** is appointed under applicable Law or under contract, whose appointment or authority to take charge of property of the **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 the **Contractor's** creditors; or

14.1.1.4 The **Contractor** disregards the authority of the **Architect**, otherwise violates in any substantial way any provision of the Contract Documents, fails to perform the Work in accordance with the Contract Documents, with the Contract Documents, or disregards the Laws, ordinances, codes, rules or regulations of any public governmental entity with jurisdiction.

14.1.1.5 The **Contractor** fails to make payment to filed Item 2 Subcontractors for materials or labor in accordance with the written agreements between the **Contractor** and Subcontractors.

14.1.1.6 The **Contractor** is guilty of a substantial breach of a provision of the Contract Documents.

14.1.2. Promptly after the **Contractor** receives either a demand for assurance or a notice of termination, the **Contractor** and surety shall meet with the **City** and present the plan they intend to follow to give adequate assurance of due performance to the **City** and to avoid or cure any default. If at or after the meeting, the **City** decides to allow the **Contractor** to continue prosecution of the Work to completion, that decision shall not waive the **City's** right to declare the **Contractor** in default subsequently nor affect any rights or remedies of the **City** against the **Contractor** or surety, or both, then existing or which may accrue in the future.

14.2 Termination for Cause:

14.2.1. If the **Contractor** at any time refuses or neglects to supply a sufficient number of properly skilled workers or of materials of the proper quality, or fails in any respect to perform the Work, or separable part of the Work, with promptness and diligence, or fails in the performance of any of the agreements herein contained, and such refusal, neglect or failure has been certified to by the **Official**, the **City** shall have full power and authority to give written notice to the **Contractor** and the surety of the **City's** intention to terminate the services of the **Contractor** seven (7) days after giving notice, or sooner if safety to persons or property is in question.

14.2.2 If the **Contractor** seeks relief in bankruptcy, or if he makes a general assignment for the benefit of his creditors, or if a receiver of his property is appointed, or if the Work to be done under this Contract is abandoned, or if this Contract or any part thereof is sublet or assigned without the previous written consent of the **Official**, or if the **Contractor** becomes insolvent, or if at any time the **Official** shall certify in writing that the **Contractor** has refused or neglected to supply a sufficient number of properly skilled workers or of materials of the proper quality, or has failed in any respect to perform the Work with promptness and diligence, or has failed in the performance of any agreements herein contained, the **City** acting by the **Official** and at his discretion, may without prejudice to any right or remedy, and after giving the **Contractor** and his surety seven (7) days prior written notice, notify the **Contractor** to terminate the Work and the **City**, acting by the **Official** and at his discretion, and without prejudice to any other remedies that the **City** may have, may thereupon by contract or otherwise, complete the Work and charge the entire expense of so completing the Work to the **Contractor**; and the **Contractor** shall not be entitled to receive any further payment under this Contract until Final Completion of the Work, at which time, if the unpaid balance of the amount to be paid under this Contract shall

exceed the expense incurred by the **City**, such excess shall be paid by the **City** to the **Contractor.** If the expense of completing the Work exceeds such unpaid balance, an appropriate credit Change Order shall be issued deducting from the Contract an amount then or thereafter due to the Contractor equal to the actual cost of correcting such deficiencies, including the City's expenses and compensation for the additional services of the Architect made necessary by such failure, refusal or default. For the purpose of completing the Work, the **City**, acting by the **Official**, may take possession of and use, or cause to be used, any materials, implements, machinery and tools of every description as may be found upon the site of the work.

14.3 Termination for Convenience:

14.3.1 Upon not less than seven (7) days written notice to the **Contractor** and the surety, or sooner if reasonable under the circumstances; the **Official** may, without cause and without prejudice to any other right or remedy, elect to terminate any part of the Work, or the Contract in whole or in part as the **City** may deem appropriate for its convenience. Upon receipt of any such termination notice, the **Contractor** shall immediately proceed in accordance with any specific provisions or instructions, protect and maintain the Work, and make reasonable and diligent efforts to mitigate costs associated with the termination.

14.3.2 In any such termination for the convenience of the **City**, the **Contractor** shall be paid for Work completed in accordance with the Contract Documents prior to receipt of the notice of termination, and for reasonable termination settlement costs relating to commitments which had become firm prior to the termination, based solely on supporting documentation that is provided to the **City** by the **Contractor**, the adequacy of which will be determined by the **City** in its sole discretion; provided, however, that the payment to the **Contractor** will exclude any and all anticipated supplemental costs, administrative expenses and profit on uncompleted work; and provided, further, that if no agreement can be reached as to reasonable termination costs, the parties will follow the provisions in the Federal Acquisition Regulations, clause 52.249-2 found in 48 CFR PART 52.

14.3.3 If, after notice of termination of the services of the **Contractor** for any of the causes listed in paragraph 14.1, it is determined that the **Contractor** was not in default, the termination shall be deemed to have been for the convenience for the **City**. In such event the **Contractor** may recover from the **City** payment in accordance with this paragraph 14.3.

14.3.4 Upon any such termination for convenience, the **City** shall have full power and authority to take possession of the Work, assume any Sub-agreements with Subcontractors and Suppliers which the **City** so selects, and prosecute the Work to completion by contract or as the **City** may deem expedient.

14.4 Surety Default:

14.4.1 If upon receipt of a notice of termination for cause, the surety fails to perform its obligations under the Performance Bond with reasonable promptness, the **City** shall declare the surety in default under the Performance Bond in accordance with the provisions of this paragraph.

14.4.1.1 No default of the surety under the Performance Bond shall be declared however, until the expiration of seven (7) days after receipt by the surety of a written notice from the **Official** demanding that the surety perform its obligations under the Performance Bond.

14.4.1.2 If the **City** declares the surety in default, the **City** shall have full power and authority to exclude the surety and **Contractor** from the site, assume any Sub-agreements which the **City** so selects and take possession of the Work and of all the surety's and **Contractor's** tools, appliances, plant and office, and construction equipment at the site and (a) use the same to the full extent they could be used by the surety and **Contractor** (without liability to the surety or **Contractor** for trespass, rent or conversion), (b) incorporate into the Work all materials and equipment stored at the site or for which the **City** has paid the **Contractor** but which are stored elsewhere, and (c) prosecute the Work to completion by contract or as the **City** otherwise may deem expedient.

14.4.2 If the **City** has terminated the **Contractor** or defaulted the surety, any such termination or default will not affect any rights or remedies of the **City** against the **Contractor** or surety, or both, then existing or which may accrue after termination. Any retention or payment of monies due the **Contractor** or surety by the **City** will not release the **Contractor** or surety from any liability. All provisions of the Contract Documents that by their nature survive final acceptance of the Work shall remain in full force and effect after a termination for cause of the **Contractor** or default of the surety, or both, as applicable.

14.4.3 The **City** may, in its sole discretion, permit the **Contractor** or surety to continue to perform Work when the **Contractor** or surety has been terminated or declared in default for any reason. Such decision by the **City** shall in no way operate as a waiver of any of the **City's** rights under the Contract Documents or the Performance Bond, nor in the event of a subsequent default, entitle the **Contractor** or surety to continue to perform or prosecute the Work to completion.

14.5 The Contractor May Stop Work or Terminate:

14.5.1 To the extent permitted by Law, if through no act or fault of the **Contractor**, the **Architect** fails to act on any Application for Payment within thirty (30) days after it is submitted, or the **City** fails for ninety (90) days to pay the **Contractor** any Application for Payment sum finally determined by the **Architect** and **City** to be due, then the **Contractor** may, upon thirty (30) additional days written notice to the **City** of a suspension of work, suspend the Work.

14.5.2 If the **City** fails to correct the conditions, if any, which under this paragraph justify the **Contractor's** suspension of the Work within ninety (90) days from the commencement of the suspension, the **Contractor** may upon thirty (30) days additional written notice to the **City** and the **Architect** terminate the Contract and recover from the **City** payment in accordance with paragraph 14.4.2 Except as specifically provided in this paragraph, these provisions shall not relieve the **Contractor** of the obligations under Article 8 to carry on the Work in accordance with the Progress Schedule and without delay during disputes and disagreements with the **City**.

ARTICLE 15 - DISPUTES

15.1 Claims Under This Article:

15.1.1 All Notices of Claims, Claims and any other matters in dispute between the **City** and the **Contractor** arising from or related to the Contract Documents or a claimed breach thereof, specifically including those matters arising from Paragraphs 4.28.1; 7.5.3 and 11.4.2, shall be subject to, processed and resolved as provided in this Article 15.

15.1.2 A "Claim" under this Article 15 shall mean a written demand or assertion by the **City** or **Contractor**, which is properly certified according to the requirements of Paragraph 15.2.1, seeking an adjustment in Contract Price and payment of monies due, an extension or shortening in Contract Time, the adjustment or interpretation of Contract terms, or any other relief arising under or relating to the Contract, after a determination by the **Architect** or **City** under the appropriate provision of the Contract Documents.

15.1.3 A Claim arising under the Contract is a Claim that can be resolved under a provision within the Contract Documents that provides for or excludes the relief sought by the claimant. Such Claims shall be resolved in accordance with the applicable provisions.

15.1.4 No Claim shall be valid unless it is based upon the prior submission of a clearly marked written "Notice of Claim" that states the general nature of the Claim delivered by the party making the Claim to other party promptly, but in no event later than thirty (30) days after the **Architect's** or **Official's** determination giving rise to the Claim. The receipt by the **City** of a timely Notice of Claim shall be a condition precedent to the **City** receiving a valid a Claim submitted from the **Contractor** for evaluation. The clearly marked written "Claim" itself together with all supporting data shall be delivered within sixty (60) days after the determination. The responsibility to substantiate Claims shall rest with the party making the Claim. Notwithstanding anything to the contrary in this Article, the **Official** shall not be required to deliver notice of any Claim for liquidated damages or involving retention until sixty (60) days after the final acceptance.

15.1.5 A Claim by the **Contractor** shall be submitted to the **Official** with a copy to the **Architect** for a written decision from the **City**. The City will provide the **Contractor** with a written acknowledgement of receipt of the Claim within seventy-two (72) hours, and will notify the **Contractor** as to the status of the Claim within thirty (30) days of receipt. A Claim by the **City** shall be submitted to the **Contractor** and the **Architect** for a written determination from the **Architect**.

15.1.6 Once given, the **City's** final decision on a Claim submitted by the **Contractor** shall be final and binding on the **Contractor** unless the **Contractor** files suit within thirty (30) days after receipt of the **City's** decision.

15.2 Requirements for Contractor Claims:

15.2.1 For all **Contractor** Claims seeking an increase in Contract Price or Contract Time, the **Contractor** shall submit a statement signed under the penalties of perjury and executed by an officer or partner in charge, or by a responsible senior officer or general managing partner of the **Contractor** certifying that the Claim is made in good faith; the amount claimed accurately reflects the adjustments in Contract Price or Contract Time for which the **Contractor** believes the **City** is liable, and covers all costs and delays to which the **Contractor** is entitled from the occurrence of the claimed event; and supporting costs and pricing data are current, accurate, complete and represent the best of the **Contractor's** knowledge and belief.

15.3 Determination on a Claim:

15.3.1 Pending final resolution of any Claim, including litigation, the **Contractor** shall proceed diligently with the Work, and comply with any decision of the **Official** or the **Architect**.

15.3.2 After settlement or final adjudication of any Claim under this Article if, upon demand, payment by the **Contractor** is not made to the **City**, the **City** may offset the appropriate amounts against (a) payments due to the **Contractor** under any other contract between the **City** and the **Contractor**, or (b) any amounts for which the **City** may be obligated to the **Contractor** in any capacity.

15.4 Venue:

15.4.1 The **Contractor**, the **Contractor's** sureties, and the Subcontractors and Suppliers agree, consent and submit to the service of process at the address and in the manner specified in Article 10.17.

15.4.2 The **Contractor**, the **Contractor's** sureties, and the Subcontractors and Suppliers waive jurisdiction and venue and shall submit to the jurisdiction of the County of Middlesex only, regardless of residence or domicile, with respect to any actions or suits

at law or in equity arising under or related to the bidding, award, performance, or completion of the Work, payment for work performed, or any Claim.

15.4.3 The **Contractor** shall insert a provision containing the venue and service of process requirements of paragraph 15.4.1 and 15.4.2 in all sub-agreements and agreements between the **Contractor** and his sureties and insurers, altering the provisions only as necessary to properly identify the contracting parties.

END OF GENERAL CONDITIONS

CITY OF NEWTON

WAGE RATE REQUIREMENTS

1. GENERAL

A. This section summarizes the requirements for the payment of wages to laborers and mechanics employed under the Contract.

B. Other duties and requirements of law which may not be specified in this section apply and are inherently a part of the Contract.

2. WAGE RATES

A. The rate per hour to be paid to mechanics, apprentices, teamsters, chauffeurs, and laborers employed on the Work shall not be less than the rate of wages in the attached "Minimum Wage Rates" as determined by the Commissioner of Labor and Industries. The schedule of prevailing wage rates will be updated annually for all public construction projects lasting longer than one (1) year. The contractor shall pay the prevailing wage rate set out in the applicable prevailing wage rate schedule. Increases in prevailing wage rates shall not be the basis for a change order.

B. Keep posted on the site a legible copy of said schedule. Keep on file the wage rates and classifications of labor employed on this Work in order that they may be available for inspection by the Owner, Administrator, or the Architect.

C. Apprentices employed pursuant to this determination of wage rates must be registered and approved by the State Apprenticeship Council wherever rates for journeymen or apprentices are not listed.

D. Pay reserve police officers employed on the Work the prevailing rate of wages paid to regular police officers as required by M.G.L. c149, Sec. 34B, as amended. Such police officers shall be covered by Workmen's Compensation Insurance and Employers Liability Insurance by the Contractor.

E. The Contractor and all subcontractors shall, on a weekly basis throughout the term of the contract, provide to the City of Newton certified payroll affidavits verifying compliance with M.G.L. c.149, Sec. 27, 27A and 27B.

F. The Contractor and all subcontractors shall provide a Statement of Compliance within 15 days of the completion of its portion of the work. This statement shall be submitted to the Owner on the form found elsewhere in this section.

G. The Contractor shall maintain accurate and complete records, including payroll records, during the Contract term and for three years thereafter.

END OF SECTION

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

DEVAL L. PATRICK
Governor
TIMOTHY P. MURRAY
Lt. Governor

JOANNE F. GOLDSTEIN
Secretary
HEATHER E. ROWE
Director

Awarding Authority: City of Newton

Contract Number: #14-22 **City/Town:** NEWTON

Description of Work: Furnish and install concrete block foundation and covered structure for Crafts Street Department of Public Works Salt and Equipment Shed

Job Location: 110 Crafts Street

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.

Issue Date: 08/23/2013 **Wage Request Number:** 20130823-028

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Construction						
(2 AXLE) DRIVER - EQUIPMENT *TEAMSTERS JOINT COUNCIL NO. 10 ZONE A*	12/01/2012	$31.55	$8.91	$8.00	$0.00	$48.46
(3 AXLE) DRIVER - EQUIPMENT *TEAMSTERS JOINT COUNCIL NO. 10 ZONE A*	12/01/2012	$31.62	$8.91	$8.00	$0.00	$48.53
(4 & 5 AXLE) DRIVER - EQUIPMENT *TEAMSTERS JOINT COUNCIL NO. 10 ZONE A*	12/01/2012	$31.74	$8.91	$8.00	$0.00	$48.65
ADS/SUBMERSIBLE PILOT *PILE DRIVER LOCAL 56 (ZONE 1)*	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 *LABORERS - ZONE 1*	06/01/2013	$33.80	$7.10	$12.45	$0.00	$53.35
	12/01/2013	$34.55	$7.10	$12.45	$0.00	$54.10
	06/01/2014	$35.30	$7.10	$12.45	$0.00	$54.85
	12/01/2014	$36.05	$7.10	$12.45	$0.00	$55.60
	06/01/2015	$36.80	$7.10	$12.45	$0.00	$56.35
	12/01/2015	$37.55	$7.10	$12.45	$0.00	$57.10
	06/01/2016	$38.30	$7.10	$12.45	$0.00	$57.85
	12/01/2016	$39.30	$7.10	$12.45	$0.00	$58.85
For apprentice rates see "Apprentice- LABORER"						
ASBESTOS REMOVER - PIPE / MECH. EQUIPT. *HEAT & FROST INSULATORS LOCAL 6 (BOSTON)*	06/01/2013	$29.88	$10.40	$5.95	$0.00	$46.23
	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 *LABORERS - ZONE 1*	06/01/2013	$33.30	$7.10	$12.45	$0.00	$52.85
	12/01/2013	$34.05	$7.10	$12.45	$0.00	$53.60
	06/01/2014	$34.80	$7.10	$12.45	$0.00	$54.35
	12/01/2014	$35.55	$7.10	$12.45	$0.00	$55.10
	06/01/2015	$36.30	$7.10	$12.45	$0.00	$55.85
	12/01/2015	$37.05	$7.10	$12.45	$0.00	$56.60
	06/01/2016	$37.80	$7.10	$12.45	$0.00	$57.35
	12/01/2016	$38.80	$7.10	$12.45	$0.00	$58.35
For apprentice rates see "Apprentice- LABORER"						
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE *OPERATING ENGINEERS LOCAL 4*	06/01/2013	$40.34	$10.00	$13.55	$0.00	$63.89
	12/01/2013	$41.12	$10.00	$13.55	$0.00	$64.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BACKHOE/FRONT-END LOADER *OPERATING ENGINEERS LOCAL 4*	06/01/2013	$40.34	$10.00	$13.55	$0.00	$63.89
	12/01/2013	$41.12	$10.00	$13.55	$0.00	$64.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
BARCO-TYPE JUMPING TAMPER *LABORERS - ZONE 1*	06/01/2013	$33.30	$7.10	$12.45	$0.00	$52.85
	12/01/2013	$34.05	$7.10	$12.45	$0.00	$53.60
	06/01/2014	$34.80	$7.10	$12.45	$0.00	$54.35
	12/01/2014	$35.55	$7.10	$12.45	$0.00	$55.10
	06/01/2015	$36.30	$7.10	$12.45	$0.00	$55.85
	12/01/2015	$37.05	$7.10	$12.45	$0.00	$56.60
	06/01/2016	$37.80	$7.10	$12.45	$0.00	$57.35
	12/01/2016	$38.80	$7.10	$12.45	$0.00	$58.35
For apprentice rates see "Apprentice- LABORER"						
BLOCK PAVER, RAMMER / CURB SETTER *LABORERS - ZONE 1*	06/01/2013	$33.80	$7.10	$12.45	$0.00	$53.35
	12/01/2013	$34.55	$7.10	$12.45	$0.00	$54.10
	06/01/2014	$35.30	$7.10	$12.45	$0.00	$54.85
	12/01/2014	$36.05	$7.10	$12.45	$0.00	$55.60
	06/01/2015	$36.80	$7.10	$12.45	$0.00	$56.35
	12/01/2015	$37.55	$7.10	$12.45	$0.00	$57.10
	06/01/2016	$38.30	$7.10	$12.45	$0.00	$57.85
	12/01/2016	$39.30	$7.10	$12.45	$0.00	$58.85
For apprentice rates see "Apprentice- LABORER"						
BOILER MAKER *BOILERMAKERS LOCAL 29*	01/01/2010	$37.70	$6.97	$11.18	$0.00	$55.85

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) *BRICKLAYERS LOCAL 3 (NEWTON)*	08/01/2013	$48.06	$10.18	$18.15	$0.00	$76.39
	02/01/2014	$48.62	$10.18	$18.15	$0.00	$76.95
	08/01/2014	$49.52	$10.18	$18.22	$0.00	$77.92
	02/01/2015	$50.08	$10.18	$18.22	$0.00	$78.48
	08/01/2015	$50.98	$10.18	$18.29	$0.00	$79.45
	02/01/2016	$51.55	$10.18	$18.29	$0.00	$80.02
	08/01/2016	$52.45	$10.18	$18.37	$0.00	$81.00
	02/01/2017	$53.02	$10.18	$18.37	$0.00	$81.57

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

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

Effective Date - 08/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$24.03	$10.18	$18.15	$0.00	$52.36
2	60	$28.84	$10.18	$18.15	$0.00	$57.17
3	70	$33.64	$10.18	$18.15	$0.00	$61.97
4	80	$38.45	$10.18	$18.15	$0.00	$66.78
5	90	$43.25	$10.18	$18.15	$0.00	$71.58

Effective Date - 02/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$24.31	$10.18	$18.15	$0.00	$52.64
2	60	$29.17	$10.18	$18.15	$0.00	$57.50
3	70	$34.03	$10.18	$18.15	$0.00	$62.36
4	80	$38.90	$10.18	$18.15	$0.00	$67.23
5	90	$43.76	$10.18	$18.15	$0.00	$72.09

Notes:

Apprentice to Journeyworker Ratio:1:5

BULLDOZER/GRADER/SCRAPER *OPERATING ENGINEERS LOCAL 4*	06/01/2013	$39.96	$10.00	$13.55	$0.00	$63.51
	12/01/2013	$40.74	$10.00	$13.55	$0.00	$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
CAISSON & UNDERPINNING BOTTOM MAN *LABORERS - FOUNDATION AND MARINE*	06/01/2013	$34.20	$7.10	$12.60	$0.00	$53.90
	12/01/2013	$34.95	$7.10	$12.60	$0.00	$54.65
	06/01/2014	$35.70	$7.10	$12.60	$0.00	$55.40
	12/01/2014	$36.45	$7.10	$12.60	$0.00	$56.15
	06/01/2015	$37.20	$7.10	$12.60	$0.00	$56.90
	12/01/2015	$37.95	$7.10	$12.60	$0.00	$57.65
	06/01/2016	$38.70	$7.10	$12.60	$0.00	$58.40
	12/01/2016	$39.70	$7.10	$12.60	$0.00	$59.40
For apprentice rates see "Apprentice- LABORER"						
CAISSON & UNDERPINNING LABORER *LABORERS - FOUNDATION AND MARINE*	06/01/2013	$33.05	$7.10	$12.60	$0.00	$52.75
	12/01/2013	$33.80	$7.10	$12.60	$0.00	$53.50
	06/01/2014	$34.55	$7.10	$12.60	$0.00	$54.25
	12/01/2014	$35.30	$7.10	$12.60	$0.00	$55.00
	06/01/2015	$36.05	$7.10	$12.60	$0.00	$55.75
	12/01/2015	$36.80	$7.10	$12.60	$0.00	$56.50
	06/01/2016	$37.55	$7.10	$12.60	$0.00	$57.25
	12/01/2016	$38.55	$7.10	$12.60	$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 *LABORERS - FOUNDATION AND MARINE*	06/01/2013	$33.05	$7.10	$12.60	$0.00	$52.75
	12/01/2013	$33.80	$7.10	$12.60	$0.00	$53.50
	06/01/2014	$34.55	$7.10	$12.60	$0.00	$54.25
	12/01/2014	$35.30	$7.10	$12.60	$0.00	$55.00
	06/01/2015	$36.05	$7.10	$12.60	$0.00	$55.75
	12/01/2015	$36.80	$7.10	$12.60	$0.00	$56.50
	06/01/2016	$37.55	$7.10	$12.60	$0.00	$57.25
	12/01/2016	$38.55	$7.10	$12.60	$0.00	$58.25
For apprentice rates see "Apprentice- LABORER"						
CARBIDE CORE DRILL OPERATOR *LABORERS - ZONE 1*	06/01/2013	$33.30	$7.10	$12.45	$0.00	$52.85
	12/01/2013	$34.05	$7.10	$12.45	$0.00	$53.60
	06/01/2014	$34.80	$7.10	$12.45	$0.00	$54.35
	12/01/2014	$35.55	$7.10	$12.45	$0.00	$55.10
	06/01/2015	$36.30	$7.10	$12.45	$0.00	$55.85
	12/01/2015	$37.05	$7.10	$12.45	$0.00	$56.60
	06/01/2016	$37.80	$7.10	$12.45	$0.00	$57.35
	12/01/2016	$38.80	$7.10	$12.45	$0.00	$58.35
For apprentice rates see "Apprentice- LABORER"						
CARPENTER *CARPENTERS -ZONE 2 (Eastern Massachusetts)*	03/01/2013	$33.92	$9.80	$15.61	$0.00	$59.33
	09/01/2013	$34.53	$9.80	$15.61	$0.00	$59.94
	03/01/2014	$35.13	$9.80	$15.61	$0.00	$60.54
	09/01/2014	$35.90	$9.80	$15.61	$0.00	$61.31
	03/01/2015	$36.67	$9.80	$15.61	$0.00	$62.08

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *CARPENTER - Zone 2 Eastern MA*

Effective Date - 03/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$16.96	$9.80	$1.57	$0.00	$28.33
2	60	$20.35	$9.80	$1.57	$0.00	$31.72
3	70	$23.74	$9.80	$10.90	$0.00	$44.44
4	75	$25.44	$9.80	$10.90	$0.00	$46.14
5	80	$27.14	$9.80	$12.47	$0.00	$49.41
6	80	$27.14	$9.80	$12.47	$0.00	$49.41
7	90	$30.53	$9.80	$14.04	$0.00	$54.37
8	90	$30.53	$9.80	$14.04	$0.00	$54.37

Effective Date - 09/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$17.27	$9.80	$1.57	$0.00	$28.64
2	60	$20.72	$9.80	$1.57	$0.00	$32.09
3	70	$24.17	$9.80	$10.90	$0.00	$44.87
4	75	$25.90	$9.80	$10.90	$0.00	$46.60
5	80	$27.62	$9.80	$12.47	$0.00	$49.89
6	80	$27.62	$9.80	$12.47	$0.00	$49.89
7	90	$31.08	$9.80	$14.04	$0.00	$54.92
8	90	$31.08	$9.80	$14.04	$0.00	$54.92

Notes:

Apprentice to Journeyworker Ratio:1:5

CEMENT MASONRY/PLASTERING *BRICKLAYERS LOCAL 3 (NEWTON)*	07/01/2013	$42.68	$10.90	$18.71	$1.30	$73.59
	01/01/2014	$43.60	$10.90	$18.71	$1.30	$74.51
	07/01/2014	$44.20	$10.90	$18.71	$1.30	$75.11
	01/01/2015	$45.14	$10.90	$18.71	$1.30	$76.05
	07/01/2015	$45.72	$10.90	$18.71	$1.30	$76.63
	01/01/2016	$46.64	$10.90	$18.71	$1.30	$77.55

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

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

Effective Date - 07/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$21.34	$10.90	$12.21	$1.30	$45.75
2	60	$25.61	$10.90	$13.71	$1.30	$51.52
3	65	$27.74	$10.90	$14.71	$1.30	$54.65
4	70	$29.88	$10.90	$15.71	$1.30	$57.79
5	75	$32.01	$10.90	$16.71	$1.30	$60.92
6	80	$34.14	$10.90	$17.71	$1.30	$64.05
7	90	$38.41	$10.90	$18.71	$1.30	$69.32

Effective Date - 01/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$21.80	$10.90	$12.21	$1.30	$46.21
2	60	$26.16	$10.90	$13.71	$1.30	$52.07
3	65	$28.34	$10.90	$14.71	$1.30	$55.25
4	70	$30.52	$10.90	$15.71	$1.30	$58.43
5	75	$32.70	$10.90	$16.71	$1.30	$61.61
6	80	$34.88	$10.90	$17.71	$1.30	$64.79
7	90	$39.24	$10.90	$18.71	$1.30	$70.15

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 1*	06/01/2013	$33.30	$7.10	$12.45	$0.00	$52.85
	12/01/2013	$34.05	$7.10	$12.45	$0.00	$53.60
	06/01/2014	$34.80	$7.10	$12.45	$0.00	$54.35
	12/01/2014	$35.55	$7.10	$12.45	$0.00	$55.10
	06/01/2015	$36.30	$7.10	$12.45	$0.00	$55.85
	12/01/2015	$37.05	$7.10	$12.45	$0.00	$56.60
	06/01/2016	$37.80	$7.10	$12.45	$0.00	$57.35
	12/01/2016	$38.80	$7.10	$12.45	$0.00	$58.35
For apprentice rates see "Apprentice- LABORER"						
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES *OPERATING ENGINEERS LOCAL 4*	06/01/2013	$41.34	$10.00	$13.55	$0.00	$64.89
	12/01/2013	$42.12	$10.00	$13.55	$0.00	$65.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
COMPRESSOR OPERATOR *OPERATING ENGINEERS LOCAL 4*	06/01/2013	$28.19	$10.00	$13.55	$0.00	$51.74
	12/01/2013	$28.74	$10.00	$13.55	$0.00	$52.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DELEADER (BRIDGE) *PAINTERS LOCAL 35 - ZONE 2*	01/01/2013	$45.01	$7.80	$15.60	$0.00	$68.41

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *PAINTER Local 35 - BRIDGES/TANKS*
Effective Date - 01/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$22.51	$7.80	$0.00	$0.00	$30.31
2	55	$24.76	$7.80	$3.52	$0.00	$36.08
3	60	$27.01	$7.80	$3.84	$0.00	$38.65
4	65	$29.26	$7.80	$4.16	$0.00	$41.22
5	70	$31.51	$7.80	$13.68	$0.00	$52.99
6	75	$33.76	$7.80	$14.00	$0.00	$55.56
7	80	$36.01	$7.80	$14.32	$0.00	$58.13
8	90	$40.51	$7.80	$14.96	$0.00	$63.27

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

DEMO: ADZEMAN *LABORERS - ZONE 1* For apprentice rates see "Apprentice- LABORER"	12/01/2011	$31.80	$7.10	$12.45	$0.00	$51.35
DEMO: BACKHOE/LOADER/HAMMER OPERATOR *LABORERS - ZONE 1* For apprentice rates see "Apprentice- LABORER"	12/01/2011	$32.80	$7.10	$12.45	$0.00	$52.35
DEMO: BURNERS *LABORERS - ZONE 1* For apprentice rates see "Apprentice- LABORER"	12/01/2011	$32.55	$7.10	$12.45	$0.00	$52.10
DEMO: CONCRETE CUTTER/SAWYER *LABORERS - ZONE 1* For apprentice rates see "Apprentice- LABORER"	12/01/2011	$32.80	$7.10	$12.45	$0.00	$52.35
DEMO: JACKHAMMER OPERATOR *LABORERS - ZONE 1* For apprentice rates see "Apprentice- LABORER"	12/01/2011	$32.55	$7.10	$12.45	$0.00	$52.10
DEMO: WRECKING LABORER *LABORERS - ZONE 1* For apprentice rates see "Apprentice- LABORER"	12/01/2011	$31.80	$7.10	$12.45	$0.00	$51.35
DIRECTIONAL DRILL MACHINE OPERATOR *OPERATING ENGINEERS LOCAL 4* For apprentice rates see "Apprentice- OPERATING ENGINEERS"	06/01/2013	$39.96	$10.00	$13.55	$0.00	$63.51
	12/01/2013	$40.74	$10.00	$13.55	$0.00	$64.29
DIVER *PILE DRIVER LOCAL 56 (ZONE 1)*	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 *PILE DRIVER LOCAL 56 (ZONE 1)*	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) *PILE DRIVER LOCAL 56 (ZONE 1)*	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

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
DIVER/SLURRY (EFFLUENT) *PILE DRIVER LOCAL 56 (ZONE 1)*	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
DRAWBRIDGE OPERATOR (Construction) *ELECTRICIANS LOCAL 103*	03/01/2013	$43.52	$13.00	$14.16	$0.00	$70.68
	09/01/2013	$43.96	$13.00	$14.42	$0.00	$71.38
	03/01/2014	$44.45	$13.00	$14.68	$0.00	$72.13
	09/01/2014	$45.12	$13.00	$14.70	$0.00	$72.82
	03/01/2015	$45.84	$13.00	$14.72	$0.00	$73.56
	09/01/2015	$46.80	$13.00	$14.75	$0.00	$74.55
	03/01/2016	$47.75	$13.00	$14.78	$0.00	$75.53
For apprentice rates see "Apprentice- ELECTRICIAN"						
ELECTRICIAN *ELECTRICIANS LOCAL 103*	03/01/2013	$43.52	$13.00	$14.16	$0.00	$70.68
	09/01/2013	$43.96	$13.00	$14.42	$0.00	$71.38
	03/01/2014	$44.45	$13.00	$14.68	$0.00	$72.13
	09/01/2014	$45.12	$13.00	$14.70	$0.00	$72.82
	03/01/2015	$45.84	$13.00	$14.72	$0.00	$73.56
	09/01/2015	$46.80	$13.00	$14.75	$0.00	$74.55
	03/01/2016	$47.75	$13.00	$14.78	$0.00	$75.53

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *ELECTRICIAN - Local 103*

Effective Date - 03/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	$17.41	$13.00	$0.52	$0.00	$30.93
2	40	$17.41	$13.00	$0.52	$0.00	$30.93
3	45	$19.58	$13.00	$10.53	$0.00	$43.11
4	45	$19.58	$13.00	$10.53	$0.00	$43.11
5	50	$21.76	$13.00	$10.85	$0.00	$45.61
6	55	$23.94	$13.00	$11.19	$0.00	$48.13
7	60	$26.11	$13.00	$11.51	$0.00	$50.62
8	65	$28.29	$13.00	$11.85	$0.00	$53.14
9	70	$30.46	$13.00	$12.17	$0.00	$55.63
10	75	$32.64	$13.00	$12.51	$0.00	$58.15

Effective Date - 09/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	$17.58	$13.00	$0.53	$0.00	$31.11
2	40	$17.58	$13.00	$0.53	$0.00	$31.11
3	45	$19.78	$13.00	$10.78	$0.00	$43.56
4	45	$19.78	$13.00	$10.78	$0.00	$43.56
5	50	$21.98	$13.00	$11.11	$0.00	$46.09
6	55	$24.18	$13.00	$11.45	$0.00	$48.63
7	60	$26.38	$13.00	$11.77	$0.00	$51.15
8	65	$28.57	$13.00	$12.11	$0.00	$53.68
9	70	$30.77	$13.00	$12.43	$0.00	$56.20
10	75	$32.97	$13.00	$12.77	$0.00	$58.74

Notes: :

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

Apprentice to Journeyworker Ratio:2:3***

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

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

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

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
ELEVATOR CONSTRUCTOR HELPER *ELEVATOR CONSTRUCTORS LOCAL 4*	01/01/2012	$38.59	$8.78	$6.96	$0.00	$54.33
FENCE & GUARD RAIL ERECTOR *LABORERS - ZONE 1*	06/01/2013	$33.30	$7.10	$12.45	$0.00	$52.85
	12/01/2013	$34.05	$7.10	$12.45	$0.00	$53.60
	06/01/2014	$34.80	$7.10	$12.45	$0.00	$54.35
	12/01/2014	$35.55	$7.10	$12.45	$0.00	$55.10
	06/01/2015	$36.30	$7.10	$12.45	$0.00	$55.85
	12/01/2015	$37.05	$7.10	$12.45	$0.00	$56.60
	06/01/2016	$37.80	$7.10	$12.45	$0.00	$57.35
	12/01/2016	$38.80	$7.10	$12.45	$0.00	$58.35
For apprentice rates see "Apprentice- LABORER"						
FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY *OPERATING ENGINEERS LOCAL 4*	05/01/2013	$38.50	$10.00	$13.02	$0.00	$61.52
	11/01/2013	$39.26	$10.00	$13.02	$0.00	$62.28
	05/01/2014	$40.03	$10.00	$13.02	$0.00	$63.05
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY *OPERATING ENGINEERS LOCAL 4*	05/01/2013	$39.91	$10.00	$13.02	$0.00	$62.93
	11/01/2013	$40.68	$10.00	$13.02	$0.00	$63.70
	05/01/2014	$41.45	$10.00	$13.02	$0.00	$64.47
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY *OPERATING ENGINEERS LOCAL 4*	05/01/2013	$21.17	$10.00	$13.02	$0.00	$44.19
	11/01/2013	$21.63	$10.00	$13.02	$0.00	$44.65
	05/01/2014	$22.08	$10.00	$13.02	$0.00	$45.10
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FIRE ALARM INSTALLER *ELECTRICIANS LOCAL 103*	03/01/2013	$43.52	$13.00	$14.16	$0.00	$70.68
	09/01/2013	$43.96	$13.00	$14.42	$0.00	$71.38
	03/01/2014	$44.45	$13.00	$14.68	$0.00	$72.13
	09/01/2014	$45.12	$13.00	$14.70	$0.00	$72.82
	03/01/2015	$45.84	$13.00	$14.72	$0.00	$73.56
	09/01/2015	$46.80	$13.00	$14.75	$0.00	$74.55
	03/01/2016	$47.75	$13.00	$14.78	$0.00	$75.53
For apprentice rates see "Apprentice- ELECTRICIAN"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
FIRE ALARM REPAIR / MAINTENANCE / COMMISSIONING *ELECTRICIANS LOCAL 103*	03/01/2013	$32.64	$13.00	$12.51	$0.00	$58.15
	09/01/2013	$32.97	$13.00	$12.77	$0.00	$58.74
	03/01/2014	$33.44	$13.00	$13.03	$0.00	$59.47
	09/01/2014	$33.84	$13.00	$13.05	$0.00	$59.89
	03/01/2015	$34.38	$13.00	$13.06	$0.00	$60.44
	09/01/2015	$35.10	$13.00	$13.08	$0.00	$61.18
	03/01/2016	$35.81	$13.00	$13.10	$0.00	$61.91
For apprentice rates see "Apprentice- TELECOMMUNICATIONS TECHNICIAN"						
FIREMAN (ASST. ENGINEER) *OPERATING ENGINEERS LOCAL 4*	06/01/2013	$33.73	$10.00	$13.55	$0.00	$57.28
	12/01/2013	$34.39	$10.00	$13.55	$0.00	$57.94
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
FLAGGER & SIGNALER *LABORERS - ZONE 1*	06/01/2013	$20.50	$7.10	$12.45	$0.00	$40.05
	12/01/2013	$20.50	$7.10	$12.45	$0.00	$40.05
	06/01/2014	$20.50	$7.10	$12.45	$0.00	$40.05
	12/01/2014	$20.50	$7.10	$12.45	$0.00	$40.05
	06/01/2015	$20.50	$7.10	$12.45	$0.00	$40.05
	12/01/2015	$20.50	$7.10	$12.45	$0.00	$40.05
	06/01/2016	$20.50	$7.10	$12.45	$0.00	$40.05
	12/01/2016	$20.50	$7.10	$12.45	$0.00	$40.05
For apprentice rates see "Apprentice- LABORER"						
FLOORCOVERER *FLOORCOVERERS LOCAL 2168 ZONE 1*	03/01/2013	$38.61	$9.80	$16.71	$0.00	$65.12
	09/01/2013	$38.61	$9.80	$16.71	$0.00	$65.12
	03/01/2014	$38.61	$9.80	$16.71	$0.00	$65.12

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *FLOORCOVERER - Local 2168 Zone I*

Effective Date - 03/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$19.31	$9.80	$1.79	$0.00	$30.90
2	55	$21.24	$9.80	$1.79	$0.00	$32.83
3	60	$23.17	$9.80	$11.34	$0.00	$44.31
4	65	$25.10	$9.80	$11.34	$0.00	$46.24
5	70	$27.03	$9.80	$13.13	$0.00	$49.96
6	75	$28.96	$9.80	$13.13	$0.00	$51.89
7	80	$30.89	$9.80	$14.92	$0.00	$55.61
8	85	$32.82	$9.80	$14.92	$0.00	$57.54

Effective Date - 09/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$19.31	$9.80	$1.79	$0.00	$30.90
2	55	$21.24	$9.80	$1.79	$0.00	$32.83
3	60	$23.17	$9.80	$11.34	$0.00	$44.31
4	65	$25.10	$9.80	$11.34	$0.00	$46.24
5	70	$27.03	$9.80	$13.13	$0.00	$49.96
6	75	$28.96	$9.80	$13.13	$0.00	$51.89
7	80	$30.89	$9.80	$14.92	$0.00	$55.61
8	85	$32.82	$9.80	$14.92	$0.00	$57.54

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

FORK LIFT/CHERRY PICKER *OPERATING ENGINEERS LOCAL 4*	06/01/2013	$40.34	$10.00	$13.55	$0.00	$63.89
For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2013	$41.12	$10.00	$13.55	$0.00	$64.67
GENERATOR/LIGHTING PLANT/HEATERS *OPERATING ENGINEERS LOCAL 4*	06/01/2013	$28.19	$10.00	$13.55	$0.00	$51.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2013	$28.74	$10.00	$13.55	$0.00	$52.29
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) *GLAZIERS LOCAL 35 (ZONE 2)*	01/01/2013	$35.51	$7.80	$14.60	$0.00	$57.91

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *GLAZIER - Local 35 Zone 2*

Effective Date - 01/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$17.76	$7.80	$0.00	$0.00	$25.56
2	55	$19.53	$7.80	$3.25	$0.00	$30.58
3	60	$21.31	$7.80	$3.54	$0.00	$32.65
4	65	$23.08	$7.80	$3.84	$0.00	$34.72
5	70	$24.86	$7.80	$12.83	$0.00	$45.49
6	75	$26.63	$7.80	$13.13	$0.00	$47.56
7	80	$28.41	$7.80	$13.42	$0.00	$49.63
8	90	$31.96	$7.80	$14.01	$0.00	$53.77

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

HOISTING ENGINEER/CRANES/GRADALLS *OPERATING ENGINEERS LOCAL 4*	06/01/2013	$40.34	$10.00	$13.55	$0.00	$63.89
	12/01/2013	$41.12	$10.00	$13.55	$0.00	$64.67

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *OPERATING ENGINEERS - Local 4*

Effective Date - 06/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	$22.19	$10.00	$0.00	$0.00	$32.19
2	60	$24.20	$10.00	$13.55	$0.00	$47.75
3	65	$26.22	$10.00	$13.55	$0.00	$49.77
4	70	$28.24	$10.00	$13.55	$0.00	$51.79
5	75	$30.26	$10.00	$13.55	$0.00	$53.81
6	80	$32.27	$10.00	$13.55	$0.00	$55.82
7	85	$34.29	$10.00	$13.55	$0.00	$57.84
8	90	$36.31	$10.00	$13.55	$0.00	$59.86

Effective Date - 12/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	$22.62	$10.00	$0.00	$0.00	$32.62
2	60	$24.67	$10.00	$13.55	$0.00	$48.22
3	65	$26.73	$10.00	$13.55	$0.00	$50.28
4	70	$28.78	$10.00	$13.55	$0.00	$52.33
5	75	$30.84	$10.00	$13.55	$0.00	$54.39
6	80	$32.90	$10.00	$13.55	$0.00	$56.45
7	85	$34.95	$10.00	$13.55	$0.00	$58.50
8	90	$37.01	$10.00	$13.55	$0.00	$60.56

Notes:

Apprentice to Journeyworker Ratio:1:6

HVAC (DUCTWORK) *SHEETMETAL WORKERS LOCAL 17 - A*	02/01/2013	$42.32	$9.82	$18.24	$2.11	$72.49
For apprentice rates see "Apprentice- SHEET METAL WORKER"						
HVAC (ELECTRICAL CONTROLS) *ELECTRICIANS LOCAL 103*	03/01/2013	$43.52	$13.00	$14.16	$0.00	$70.68
	09/01/2013	$43.96	$13.00	$14.42	$0.00	$71.38
	03/01/2014	$44.45	$13.00	$14.68	$0.00	$72.13
	09/01/2014	$45.12	$13.00	$14.70	$0.00	$72.82
	03/01/2015	$45.84	$13.00	$14.72	$0.00	$73.56
	09/01/2015	$46.80	$13.00	$14.75	$0.00	$74.55
	03/01/2016	$47.75	$13.00	$14.78	$0.00	$75.53
For apprentice rates see "Apprentice- ELECTRICIAN"						
HVAC (TESTING AND BALANCING - AIR) *SHEETMETAL WORKERS LOCAL 17 - A*	02/01/2013	$42.32	$9.82	$18.24	$2.11	$72.49
For apprentice rates see "Apprentice- SHEET METAL WORKER"						
HVAC (TESTING AND BALANCING -WATER) *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"						
HVAC MECHANIC *PIPEFITTERS LOCAL 537*	03/01/2013	$49.34	$8.75	$14.39	$0.00	$72.48

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HYDRAULIC DRILLS *LABORERS - ZONE 1*	06/01/2013	$33.80	$7.10	$12.45	$0.00	$53.35
	12/01/2013	$34.55	$7.10	$12.45	$0.00	$54.10
	06/01/2014	$35.30	$7.10	$12.45	$0.00	$54.85
	12/01/2014	$36.05	$7.10	$12.45	$0.00	$55.60
	06/01/2015	$36.80	$7.10	$12.45	$0.00	$56.35
	12/01/2015	$37.55	$7.10	$12.45	$0.00	$57.10
	06/01/2016	$38.30	$7.10	$12.45	$0.00	$57.85
	12/01/2016	$39.30	$7.10	$12.45	$0.00	$58.85
For apprentice rates see "Apprentice- LABORER"						
INSULATOR (PIPES & TANKS) *HEAT & FROST INSULATORS LOCAL 6 (BOSTON)*	09/01/2012	$41.46	$10.65	$11.50	$0.00	$63.61
	09/01/2013	$43.06	$10.65	$11.50	$0.00	$65.21
	09/01/2014	$45.06	$10.65	$11.50	$0.00	$67.21

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

Effective Date - 09/01/2012

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$20.73	$10.65	$8.60	$0.00	$39.98
2	60	$24.88	$10.65	$9.18	$0.00	$44.71
3	70	$29.02	$10.65	$9.76	$0.00	$49.43
4	80	$33.17	$10.65	$10.34	$0.00	$54.16

Effective Date - 09/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$21.53	$10.65	$8.60	$0.00	$40.78
2	60	$25.84	$10.65	$9.18	$0.00	$45.67
3	70	$30.14	$10.65	$9.76	$0.00	$50.55
4	80	$34.45	$10.65	$10.34	$0.00	$55.44

Notes:
Steps are 1 year

Apprentice to Journeyworker Ratio:1:4

IRONWORKER/WELDER *IRONWORKERS LOCAL 7 (BOSTON AREA)*	03/16/2013	$40.23	$7.70	$18.35	$0.00	$66.28

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *IRONWORKER - Local 7 Boston*
Effective Date - 03/16/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	$24.14	$7.70	$18.35	$0.00	$50.19
2	70	$28.16	$7.70	$18.35	$0.00	$54.21
3	75	$30.17	$7.70	$18.35	$0.00	$56.22
4	80	$32.18	$7.70	$18.35	$0.00	$58.23
5	85	$34.20	$7.70	$18.35	$0.00	$60.25
6	90	$36.21	$7.70	$18.35	$0.00	$62.26

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

Apprentice to Journeyworker Ratio:**

JACKHAMMER & PAVING BREAKER OPERATOR *LABORERS - ZONE 1*	06/01/2013	$33.30	$7.10	$12.45	$0.00	$52.85
	12/01/2013	$34.05	$7.10	$12.45	$0.00	$53.60
	06/01/2014	$34.80	$7.10	$12.45	$0.00	$54.35
	12/01/2014	$35.55	$7.10	$12.45	$0.00	$55.10
	06/01/2015	$36.30	$7.10	$12.45	$0.00	$55.85
	12/01/2015	$37.05	$7.10	$12.45	$0.00	$56.60
	06/01/2016	$37.80	$7.10	$12.45	$0.00	$57.35
	12/01/2016	$38.80	$7.10	$12.45	$0.00	$58.35
For apprentice rates see "Apprentice- LABORER"						
LABORER *LABORERS - ZONE 1*	06/01/2013	$33.05	$7.10	$12.45	$0.00	$52.60
	12/01/2013	$33.80	$7.10	$12.45	$0.00	$53.35
	06/01/2014	$34.55	$7.10	$12.45	$0.00	$54.10
	12/01/2014	$35.30	$7.10	$12.45	$0.00	$54.85
	06/01/2015	$36.05	$7.10	$12.45	$0.00	$55.60
	12/01/2015	$36.80	$7.10	$12.45	$0.00	$56.35
	06/01/2016	$37.55	$7.10	$12.45	$0.00	$57.10
	12/01/2016	$38.55	$7.10	$12.45	$0.00	$58.10

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *LABORER - Zone 1*

Effective Date - 06/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	$19.83	$7.10	$12.45	$0.00	$39.38
2	70	$23.14	$7.10	$12.45	$0.00	$42.69
3	80	$26.44	$7.10	$12.45	$0.00	$45.99
4	90	$29.75	$7.10	$12.45	$0.00	$49.30

Effective Date - 12/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	$20.28	$7.10	$12.45	$0.00	$39.83
2	70	$23.66	$7.10	$12.45	$0.00	$43.21
3	80	$27.04	$7.10	$12.45	$0.00	$46.59
4	90	$30.42	$7.10	$12.45	$0.00	$49.97

Notes:

Apprentice to Journeyworker Ratio:1:5

LABORER: CARPENTER TENDER *LABORERS - ZONE 1*	06/01/2013	$33.05	$7.10	$12.45	$0.00	$52.60
	12/01/2013	$33.80	$7.10	$12.45	$0.00	$53.35
	06/01/2014	$34.55	$7.10	$12.45	$0.00	$54.10
	12/01/2014	$35.30	$7.10	$12.45	$0.00	$54.85
	06/01/2015	$36.05	$7.10	$12.45	$0.00	$55.60
	12/01/2015	$36.80	$7.10	$12.45	$0.00	$56.35
	06/01/2016	$37.55	$7.10	$12.45	$0.00	$57.10
	12/01/2016	$38.55	$7.10	$12.45	$0.00	$58.10
For apprentice rates see "Apprentice- LABORER"						
LABORER: CEMENT FINISHER TENDER *LABORERS - ZONE 1*	06/01/2013	$33.05	$7.10	$12.45	$0.00	$52.60
	12/01/2013	$33.80	$7.10	$12.45	$0.00	$53.35
	06/01/2014	$34.55	$7.10	$12.45	$0.00	$54.10
	12/01/2014	$35.30	$7.10	$12.45	$0.00	$54.85
	06/01/2015	$36.05	$7.10	$12.45	$0.00	$55.60
	12/01/2015	$36.80	$7.10	$12.45	$0.00	$56.35
	06/01/2016	$37.55	$7.10	$12.45	$0.00	$57.10
	12/01/2016	$38.55	$7.10	$12.45	$0.00	$58.10
For apprentice rates see "Apprentice- LABORER"						
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER *LABORERS - ZONE 1*	12/01/2011	$31.80	$7.10	$12.45	$0.00	$51.35
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER: MASON TENDER *LABORERS - ZONE 1*	06/01/2013	$33.30	$7.10	$12.45	$0.00	$52.85
	12/01/2013	$34.05	$7.10	$12.45	$0.00	$53.60
	06/01/2014	$34.80	$7.10	$12.45	$0.00	$54.35
	12/01/2014	$35.55	$7.10	$12.45	$0.00	$55.10
	06/01/2015	$36.30	$7.10	$12.45	$0.00	$55.85
	12/01/2015	$37.05	$7.10	$12.45	$0.00	$56.60
	06/01/2016	$37.80	$7.10	$12.45	$0.00	$57.35
	12/01/2016	$38.80	$7.10	$12.45	$0.00	$58.35
For apprentice rates see "Apprentice- LABORER"						
LABORER: MULTI-TRADE TENDER *LABORERS - ZONE 1*	06/01/2013	$33.05	$7.10	$12.45	$0.00	$52.60
	12/01/2013	$33.80	$7.10	$12.45	$0.00	$53.35
	06/01/2014	$34.55	$7.10	$12.45	$0.00	$54.10
	12/01/2014	$35.30	$7.10	$12.45	$0.00	$54.85
	06/01/2015	$36.05	$7.10	$12.45	$0.00	$55.60
	12/01/2015	$36.80	$7.10	$12.45	$0.00	$56.35
	06/01/2016	$37.55	$7.10	$12.45	$0.00	$57.10
	12/01/2016	$38.55	$7.10	$12.45	$0.00	$58.10
For apprentice rates see "Apprentice- LABORER"						
LABORER: TREE REMOVER *LABORERS - ZONE 1*	06/01/2013	$33.05	$7.10	$12.45	$0.00	$52.60
	12/01/2013	$33.80	$7.10	$12.45	$0.00	$53.35
	06/01/2014	$34.55	$7.10	$12.45	$0.00	$54.10
	12/01/2014	$35.30	$7.10	$12.45	$0.00	$54.85
	06/01/2015	$36.05	$7.10	$12.45	$0.00	$55.60
	12/01/2015	$36.80	$7.10	$12.45	$0.00	$56.35
	06/01/2016	$37.55	$7.10	$12.45	$0.00	$57.10
	12/01/2016	$38.55	$7.10	$12.45	$0.00	$58.10
This classification applies to the wholesale removal of standing trees including all associated trimming of branches and limbs, and applies to the removal of branches at locations not on or around utility lines. For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR *LABORERS - ZONE 1*	06/01/2013	$33.30	$7.10	$12.45	$0.00	$52.85
	12/01/2013	$34.05	$7.10	$12.45	$0.00	$53.60
	06/01/2014	$34.80	$7.10	$12.45	$0.00	$54.35
	12/01/2014	$35.55	$7.10	$12.45	$0.00	$55.10
	06/01/2015	$36.30	$7.10	$12.45	$0.00	$55.85
	12/01/2015	$37.05	$7.10	$12.45	$0.00	$56.60
	06/01/2016	$37.80	$7.10	$12.45	$0.00	$57.35
	12/01/2016	$38.80	$7.10	$12.45	$0.00	$58.35
For apprentice rates see "Apprentice- LABORER"						
MARBLE & TILE FINISHERS *BRICKLAYERS LOCAL 3 - MARBLE & TILE*	08/01/2013	$36.66	$10.18	$16.83	$0.00	$63.67
	02/01/2014	$37.11	$10.18	$16.83	$0.00	$64.12
	08/01/2014	$37.82	$10.18	$16.90	$0.00	$64.90
	02/01/2015	$38.27	$10.18	$16.90	$0.00	$65.35
	08/01/2015	$38.98	$10.18	$16.97	$0.00	$66.13
	02/01/2016	$39.43	$10.18	$16.97	$0.00	$66.58
	08/01/2016	$40.13	$10.18	$17.05	$0.00	$67.36
	02/01/2017	$40.59	$10.18	$17.05	$0.00	$67.82

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

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

Effective Date - 08/01/2013

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 - 02/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$18.56	$10.18	$16.83	$0.00	$45.57
2	60	$22.27	$10.18	$16.83	$0.00	$49.28
3	70	$25.98	$10.18	$16.83	$0.00	$52.99
4	80	$29.69	$10.18	$16.83	$0.00	$56.70
5	90	$33.40	$10.18	$16.83	$0.00	$60.41

Notes:

Apprentice to Journeyworker Ratio:1:3

MARBLE MASONS,TILELAYERS & TERRAZZO MECH *BRICKLAYERS LOCAL 3 - MARBLE & TILE*	08/01/2013	$48.10	$10.18	$18.15	$0.00	$76.43
	02/01/2014	$48.66	$10.18	$18.15	$0.00	$76.99
	08/01/2014	$49.56	$10.18	$18.22	$0.00	$77.96
	02/01/2015	$50.12	$10.18	$18.22	$0.00	$78.52
	08/01/2015	$51.02	$10.18	$18.29	$0.00	$79.49
	02/01/2016	$51.59	$10.18	$18.29	$0.00	$80.06
	08/01/2016	$52.49	$10.18	$18.37	$0.00	$81.04
	02/01/2017	$53.06	$10.18	$18.37	$0.00	$81.61

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

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

Effective Date - 08/01/2013

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 - 02/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$24.33	$10.18	$18.15	$0.00	$52.66
2	60	$29.20	$10.18	$18.15	$0.00	$57.53
3	70	$34.06	$10.18	$18.15	$0.00	$62.39
4	80	$38.93	$10.18	$18.15	$0.00	$67.26
5	90	$43.79	$10.18	$18.15	$0.00	$72.12

Notes:

Apprentice to Journeyworker Ratio:1:5

MECH. SWEEPER OPERATOR (ON CONST. SITES) *OPERATING ENGINEERS LOCAL 4*	06/01/2013	$39.96	$10.00	$13.55	$0.00	$63.51
	12/01/2013	$40.74	$10.00	$13.55	$0.00	$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
MECHANICS MAINTENANCE *OPERATING ENGINEERS LOCAL 4*	06/01/2013	$39.96	$10.00	$13.55	$0.00	$63.51
	12/01/2013	$40.74	$10.00	$13.55	$0.00	$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
MILLWRIGHT (Zone 1) *MILLWRIGHTS LOCAL 1121 - Zone 1*	04/01/2013	$34.68	$9.80	$15.76	$0.00	$60.24
	10/01/2013	$35.45	$9.80	$15.76	$0.00	$61.01
	04/01/2014	$36.23	$9.80	$15.76	$0.00	$61.79
	10/01/2014	$37.18	$9.80	$15.76	$0.00	$62.74
	04/01/2015	$38.14	$9.80	$15.76	$0.00	$63.70

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *MILLWRIGHT - Local 1121 Zone 1*

Effective Date - 04/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	$19.07	$9.80	$4.32	$0.00	$33.19
2	65	$22.54	$9.80	$13.01	$0.00	$45.35
3	75	$26.01	$9.80	$13.80	$0.00	$49.61
4	85	$29.48	$9.80	$14.58	$0.00	$53.86

Effective Date - 10/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	$19.50	$9.80	$4.32	$0.00	$33.62
2	65	$23.04	$9.80	$13.01	$0.00	$45.85
3	75	$26.59	$9.80	$13.80	$0.00	$50.19
4	85	$30.13	$9.80	$14.58	$0.00	$54.51

Notes:

Steps are 2,000 hours

Apprentice to Journeyworker Ratio:1:5

MORTAR MIXER *LABORERS - ZONE 1*	06/01/2013	$33.30	$7.10	$12.45	$0.00	$52.85
	12/01/2013	$34.05	$7.10	$12.45	$0.00	$53.60
	06/01/2014	$34.80	$7.10	$12.45	$0.00	$54.35
	12/01/2014	$35.55	$7.10	$12.45	$0.00	$55.10
	06/01/2015	$36.30	$7.10	$12.45	$0.00	$55.85
	12/01/2015	$37.05	$7.10	$12.45	$0.00	$56.60
	06/01/2016	$37.80	$7.10	$12.45	$0.00	$57.35
	12/01/2016	$38.80	$7.10	$12.45	$0.00	$58.35
For apprentice rates see "Apprentice- LABORER"						
OILER (OTHER THAN TRUCK CRANES,GRADALLS) *OPERATING ENGINEERS LOCAL 4*	06/01/2013	$21.17	$10.00	$13.55	$0.00	$44.72
	12/01/2013	$21.59	$10.00	$13.55	$0.00	$45.14
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
OILER (TRUCK CRANES, GRADALLS) *OPERATING ENGINEERS LOCAL 4*	06/01/2013	$24.57	$10.00	$13.55	$0.00	$48.12
	12/01/2013	$25.06	$10.00	$13.55	$0.00	$48.61
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
OTHER POWER DRIVEN EQUIPMENT - CLASS II *OPERATING ENGINEERS LOCAL 4*	06/01/2013	$39.96	$10.00	$13.55	$0.00	$63.51
	12/01/2013	$40.74	$10.00	$13.55	$0.00	$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PAINTER (BRIDGES/TANKS) *PAINTERS LOCAL 35 - ZONE 2*	01/01/2013	$45.01	$7.80	$15.60	$0.00	$68.41

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *PAINTER Local 35 - BRIDGES/TANKS*
Effective Date - 01/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$22.51	$7.80	$0.00	$0.00	$30.31
2	55	$24.76	$7.80	$3.52	$0.00	$36.08
3	60	$27.01	$7.80	$3.84	$0.00	$38.65
4	65	$29.26	$7.80	$4.16	$0.00	$41.22
5	70	$31.51	$7.80	$13.68	$0.00	$52.99
6	75	$33.76	$7.80	$14.00	$0.00	$55.56
7	80	$36.01	$7.80	$14.32	$0.00	$58.13
8	90	$40.51	$7.80	$14.96	$0.00	$63.27

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, NEW) *	01/01/2013	$35.91	$7.80	$15.60	$0.00	$59.31

* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used. *PAINTERS LOCAL 35 - ZONE 2*

Apprentice - *PAINTER Local 35 Zone 2 - Spray/Sandblast - New*
Effective Date - 01/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$17.96	$7.80	$0.00	$0.00	$25.76
2	55	$19.75	$7.80	$3.52	$0.00	$31.07
3	60	$21.55	$7.80	$3.84	$0.00	$33.19
4	65	$23.34	$7.80	$4.16	$0.00	$35.30
5	70	$25.14	$7.80	$13.68	$0.00	$46.62
6	75	$26.93	$7.80	$14.00	$0.00	$48.73
7	80	$28.73	$7.80	$14.32	$0.00	$50.85
8	90	$32.32	$7.80	$14.96	$0.00	$55.08

Notes:

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, REPAINT) *PAINTERS LOCAL 35 - ZONE 2*	01/01/2013	$33.97	$7.80	$15.60	$0.00	$57.37

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *PAINTER Local 35 Zone 2 - Spray/Sandblast - Repaint*
Effective Date - 01/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$16.99	$7.80	$0.00	$0.00	$24.79
2	55	$18.68	$7.80	$3.52	$0.00	$30.00
3	60	$20.38	$7.80	$3.84	$0.00	$32.02
4	65	$22.08	$7.80	$4.16	$0.00	$34.04
5	70	$23.78	$7.80	$13.68	$0.00	$45.26
6	75	$25.48	$7.80	$14.00	$0.00	$47.28
7	80	$27.18	$7.80	$14.32	$0.00	$49.30
8	90	$30.57	$7.80	$14.96	$0.00	$53.33

Notes:

Apprentice to Journeyworker Ratio:1:1

PAINTER (TRAFFIC MARKINGS) *LABORERS - ZONE 1*	06/01/2013	$33.05	$7.10	$12.45	$0.00	$52.60
	12/01/2013	$33.80	$7.10	$12.45	$0.00	$53.35
	06/01/2014	$34.55	$7.10	$12.45	$0.00	$54.10
	12/01/2014	$35.30	$7.10	$12.45	$0.00	$54.85
	06/01/2015	$36.05	$7.10	$12.45	$0.00	$55.60
	12/01/2015	$36.80	$7.10	$12.45	$0.00	$56.35
	06/01/2016	$37.55	$7.10	$12.45	$0.00	$57.10
	12/01/2016	$38.55	$7.10	$12.45	$0.00	$58.10
For Apprentice rates see "Apprentice- LABORER"						
PAINTER / TAPER (BRUSH, NEW) * * If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used.*PAINTERS LOCAL 35 - ZONE 2*	01/01/2013	$34.51	$7.80	$15.60	$0.00	$57.91

Apprentice - *PAINTER - Local 35 Zone 2 - BRUSH NEW*
Effective Date - 01/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$17.26	$7.80	$0.00	$0.00	$25.06
2	55	$18.98	$7.80	$3.52	$0.00	$30.30
3	60	$20.71	$7.80	$3.84	$0.00	$32.35
4	65	$22.43	$7.80	$4.16	$0.00	$34.39
5	70	$24.16	$7.80	$13.68	$0.00	$45.64
6	75	$25.88	$7.80	$14.00	$0.00	$47.68
7	80	$27.61	$7.80	$14.32	$0.00	$49.73
8	90	$31.06	$7.80	$14.96	$0.00	$53.82

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
PAINTER / TAPER (BRUSH, REPAINT) *PAINTERS LOCAL 35 - ZONE 2*	01/01/2013	$32.57	$7.80	$15.60	$0.00	$55.97

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

Effective Date - 01/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$16.29	$7.80	$0.00	$0.00	$24.09
2	55	$17.91	$7.80	$3.52	$0.00	$29.23
3	60	$19.54	$7.80	$3.84	$0.00	$31.18
4	65	$21.17	$7.80	$4.16	$0.00	$33.13
5	70	$22.80	$7.80	$13.68	$0.00	$44.28
6	75	$24.43	$7.80	$14.00	$0.00	$46.23
7	80	$26.06	$7.80	$14.32	$0.00	$48.18
8	90	$29.31	$7.80	$14.96	$0.00	$52.07

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PANEL & PICKUP TRUCKS DRIVER *TEAMSTERS JOINT COUNCIL NO. 10 ZONE A*	12/01/2012	$31.38	$8.91	$8.00	$0.00	$48.29
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK) *PILE DRIVER LOCAL 56 (ZONE 1)*	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 *PILE DRIVER LOCAL 56 (ZONE 1)*	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

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 1*	06/01/2013	$33.30	$7.10	$12.45	$0.00	$52.85
	12/01/2013	$34.05	$7.10	$12.45	$0.00	$53.60
	06/01/2014	$34.80	$7.10	$12.45	$0.00	$54.35
	12/01/2014	$35.55	$7.10	$12.45	$0.00	$55.10
	06/01/2015	$36.30	$7.10	$12.45	$0.00	$55.85
	12/01/2015	$37.05	$7.10	$12.45	$0.00	$56.60
	06/01/2016	$37.80	$7.10	$12.45	$0.00	$57.35
	12/01/2016	$38.80	$7.10	$12.45	$0.00	$58.35
For apprentice rates see "Apprentice- LABORER"						
PLUMBERS & GASFITTERS *PLUMBERS & GASFITTERS LOCAL 12*	03/01/2013	$49.31	$9.32	$13.29	$0.00	$71.92

Apprentice - *PLUMBER/GASFITTER - Local 12*

Effective Date - 03/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	$17.26	$9.32	$4.97	$0.00	$31.55
2	40	$19.72	$9.32	$5.61	$0.00	$34.65
3	55	$27.12	$9.32	$7.53	$0.00	$43.97
4	65	$32.05	$9.32	$8.81	$0.00	$50.18
5	75	$36.98	$9.32	$10.09	$0.00	$56.39

Notes:
** 1:2; 2:6; 3:10; 4:14; 5:19/Steps are 1 yr
Step4 with lic$53.29 Step5 with lic$59.49

Apprentice to Journeyworker Ratio:**

PNEUMATIC CONTROLS (TEMP.) *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"						
PNEUMATIC DRILL/TOOL OPERATOR *LABORERS - ZONE 1*	06/01/2013	$33.30	$7.10	$12.45	$0.00	$52.85
	12/01/2013	$34.05	$7.10	$12.45	$0.00	$53.60
	06/01/2014	$34.80	$7.10	$12.45	$0.00	$54.35
	12/01/2014	$35.55	$7.10	$12.45	$0.00	$55.10
	06/01/2015	$36.30	$7.10	$12.45	$0.00	$55.85
	12/01/2015	$37.05	$7.10	$12.45	$0.00	$56.60
	06/01/2016	$37.80	$7.10	$12.45	$0.00	$57.35
	12/01/2016	$38.80	$7.10	$12.45	$0.00	$58.35
For apprentice rates see "Apprentice- LABORER"						
POWDERMAN & BLASTER *LABORERS - ZONE 1*	06/01/2013	$34.05	$7.10	$12.45	$0.00	$53.60
	12/01/2013	$34.80	$7.10	$12.45	$0.00	$54.35
	06/01/2014	$35.55	$7.10	$12.45	$0.00	$55.10
	12/01/2014	$36.30	$7.10	$12.45	$0.00	$55.85
	06/01/2015	$37.05	$7.10	$12.45	$0.00	$56.60
	12/01/2015	$37.80	$7.10	$12.45	$0.00	$57.35
	06/01/2016	$38.55	$7.10	$12.45	$0.00	$58.10
	12/01/2016	$39.55	$7.10	$12.45	$0.00	$59.10
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
POWER SHOVEL/DERRICK/TRENCHING MACHINE *OPERATING ENGINEERS LOCAL 4*	06/01/2013	$40.34	$10.00	$13.55	$0.00	$63.89
	12/01/2013	$41.12	$10.00	$13.55	$0.00	$64.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (CONCRETE) *OPERATING ENGINEERS LOCAL 4*	06/01/2013	$40.34	$10.00	$13.55	$0.00	$63.89
	12/01/2013	$41.12	$10.00	$13.55	$0.00	$64.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (DEWATERING, OTHER) *OPERATING ENGINEERS LOCAL 4*	06/01/2013	$28.19	$10.00	$13.55	$0.00	$51.74
	12/01/2013	$28.74	$10.00	$13.55	$0.00	$52.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
READY-MIX CONCRETE DRIVER *TEAMSTERS LOCAL 25b*	05/01/2011	$28.03	$7.75	$5.91	$0.00	$41.69
RECLAIMERS *OPERATING ENGINEERS LOCAL 4*	06/01/2013	$39.96	$10.00	$13.55	$0.00	$63.51
	12/01/2013	$40.74	$10.00	$13.55	$0.00	$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
RESIDENTIAL WOOD FRAME (All Other Work) *CARPENTERS -ZONE 2 (Residential Wood)*	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. *CARPENTERS -ZONE 2 (Residential Wood)*	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.

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 *LABORERS - ZONE 1*	06/01/2013	$33.30	$7.10	$12.45	$0.00	$52.85
	12/01/2013	$34.05	$7.10	$12.45	$0.00	$53.60
	06/01/2014	$34.80	$7.10	$12.45	$0.00	$54.35
	12/01/2014	$35.55	$7.10	$12.45	$0.00	$55.10
	06/01/2015	$36.30	$7.10	$12.45	$0.00	$55.85
	12/01/2015	$37.05	$7.10	$12.45	$0.00	$56.60
	06/01/2016	$37.80	$7.10	$12.45	$0.00	$57.35
	12/01/2016	$38.80	$7.10	$12.45	$0.00	$58.35

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
ROLLER/SPREADER/MULCHING MACHINE *OPERATING ENGINEERS LOCAL 4*	06/01/2013	$39.96	$10.00	$13.55	$0.00	$63.51
	12/01/2013	$40.74	$10.00	$13.55	$0.00	$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
ROOFER (Inc.Roofer Waterproofng &Roofer Damproofg) *ROOFERS LOCAL 33*	08/01/2013	$38.31	$10.50	$10.70	$0.00	$59.51
	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

Apprentice - *ROOFER - Local 33*

Effective Date - 08/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$19.16	$10.50	$3.38	$0.00	$33.04
2	60	$22.99	$10.50	$10.70	$0.00	$44.19
3	65	$24.90	$10.50	$10.70	$0.00	$46.10
4	75	$28.73	$10.50	$10.70	$0.00	$49.93
5	85	$32.56	$10.50	$10.70	$0.00	$53.76

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

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 *ROOFERS LOCAL 33*	08/01/2013	$38.56	$10.50	$10.70	$0.00	$59.76
	02/01/2014	$39.46	$10.50	$10.70	$0.00	$60.66
	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 *SHEETMETAL WORKERS LOCAL 17 - A*	02/01/2013	$42.32	$9.82	$18.24	$2.11	$72.49

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *SHEET METAL WORKER - Local 17-A*
Effective Date - 02/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	$16.93	$9.82	$4.00	$0.00	$30.75
2	40	$16.93	$9.82	$4.00	$0.00	$30.75
3	45	$19.04	$9.82	$8.00	$1.11	$37.97
4	45	$19.04	$9.82	$8.00	$1.11	$37.97
5	50	$21.16	$9.82	$8.75	$1.19	$40.92
6	50	$21.16	$9.82	$9.00	$1.20	$41.18
7	60	$25.39	$9.82	$10.24	$1.36	$46.81
8	65	$27.51	$9.82	$10.99	$1.45	$49.77
9	75	$31.74	$9.82	$12.49	$1.62	$55.67
10	85	$35.97	$9.82	$13.49	$1.78	$61.06

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

Apprentice - *SIGN ERECTOR - Local 35 Zone 2*
Effective Date - 06/01/2013

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

Notes:
Steps are 4 mos.

Apprentice to Journeyworker Ratio:1:1

SPECIALIZED EARTH MOVING EQUIP < 35 TONS *TEAMSTERS JOINT COUNCIL NO. 10 ZONE A*	12/01/2012	$31.84	$8.91	$8.00	$0.00	$48.75
SPECIALIZED EARTH MOVING EQUIP > 35 TONS *TEAMSTERS JOINT COUNCIL NO. 10 ZONE A*	12/01/2012	$32.13	$8.91	$8.00	$0.00	$49.04
SPRINKLER FITTER *SPRINKLER FITTERS LOCAL 550 - (Section A)*	03/01/2013	$52.58	$8.42	$12.60	$0.00	$73.60

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *SPRINKLER FITTER - Local 550*
Effective Date - 03/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	35	$18.40	$8.42	$8.00	$0.00	$34.82
2	40	$21.03	$8.42	$8.00	$0.00	$37.45
3	45	$23.66	$8.42	$8.00	$0.00	$40.08
4	50	$26.29	$8.42	$8.00	$0.00	$42.71
5	55	$28.92	$8.42	$8.00	$0.00	$45.34
6	60	$31.55	$8.42	$8.00	$0.00	$47.97
7	65	$34.18	$8.42	$8.00	$0.00	$50.60
8	70	$36.81	$8.42	$8.00	$0.00	$53.23
9	75	$39.44	$8.42	$8.00	$0.00	$55.86
10	80	$42.06	$8.42	$8.00	$0.00	$58.48

Notes:
Steps are 850 hours

Apprentice to Journeyworker Ratio:1:1

STEAM BOILER OPERATOR *OPERATING ENGINEERS LOCAL 4*	06/01/2013	$39.96	$10.00	$13.55	$0.00	$63.51
	12/01/2013	$40.74	$10.00	$13.55	$0.00	$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN *OPERATING ENGINEERS LOCAL 4*	06/01/2013	$39.96	$10.00	$13.55	$0.00	$63.51
	12/01/2013	$40.74	$10.00	$13.55	$0.00	$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TELECOMMUNICATION TECHNICIAN *ELECTRICIANS LOCAL 103*	03/01/2013	$32.64	$13.00	$12.51	$0.00	$58.15
	09/01/2013	$32.97	$13.00	$12.77	$0.00	$58.74
	03/01/2014	$33.44	$13.00	$13.03	$0.00	$59.47
	09/01/2014	$33.84	$13.00	$13.05	$0.00	$59.89
	03/01/2015	$34.38	$13.00	$13.06	$0.00	$60.44
	09/01/2015	$35.10	$13.00	$13.08	$0.00	$61.18
	03/01/2016	$35.81	$13.00	$13.10	$0.00	$61.91

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *TELECOMMUNICATION TECHNICIAN - Local 103*

Effective Date - 03/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	$13.06	$13.00	$0.39	$0.00	$26.45
2	40	$13.06	$13.00	$0.39	$0.00	$26.45
3	45	$14.69	$13.00	$9.78	$0.00	$37.47
4	45	$14.69	$13.00	$9.78	$0.00	$37.47
5	50	$16.32	$13.00	$10.03	$0.00	$39.35
6	55	$17.95	$13.00	$10.28	$0.00	$41.23
7	60	$19.58	$13.00	$10.53	$0.00	$43.11
8	65	$21.22	$13.00	$10.78	$0.00	$45.00
9	70	$22.85	$13.00	$11.03	$0.00	$46.88
10	75	$24.48	$13.00	$11.27	$0.00	$48.75

Effective Date - 09/01/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	$13.19	$13.00	$0.40	$0.00	$26.59
2	40	$13.19	$13.00	$0.40	$0.00	$26.59
3	45	$14.84	$13.00	$10.04	$0.00	$37.88
4	45	$14.84	$13.00	$10.04	$0.00	$37.88
5	50	$16.49	$13.00	$10.29	$0.00	$39.78
6	55	$18.13	$13.00	$10.53	$0.00	$41.66
7	60	$19.78	$13.00	$10.78	$0.00	$43.56
8	65	$21.43	$13.00	$11.03	$0.00	$45.46
9	70	$23.08	$13.00	$11.28	$0.00	$47.36
10	75	$24.73	$13.00	$11.53	$0.00	$49.26

Notes:

Apprentice to Journeyworker Ratio:1:1

TERRAZZO FINISHERS *BRICKLAYERS LOCAL 3 - MARBLE & TILE*	08/01/2013	$47.00	$10.18	$18.15	$0.00	$75.33
	02/01/2014	$47.56	$10.18	$18.15	$0.00	$75.89
	08/01/2014	$48.46	$10.18	$18.22	$0.00	$76.86
	02/01/2015	$49.02	$10.18	$18.22	$0.00	$77.42
	08/01/2015	$49.92	$10.18	$18.29	$0.00	$78.39
	02/01/2016	$50.49	$10.18	$18.29	$0.00	$78.96
	08/01/2016	$51.39	$10.18	$18.37	$0.00	$79.94
	02/01/2017	$51.96	$10.18	$18.37	$0.00	$80.51

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

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

Effective Date - 08/01/2013

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 - 02/01/2014

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$23.78	$10.18	$18.15	$0.00	$52.11
2	60	$28.54	$10.18	$18.15	$0.00	$56.87
3	70	$33.29	$10.18	$18.15	$0.00	$61.62
4	80	$38.05	$10.18	$18.15	$0.00	$66.38
5	90	$42.80	$10.18	$18.15	$0.00	$71.13

Notes:

Apprentice to Journeyworker Ratio:1:3

TEST BORING DRILLER *LABORERS - FOUNDATION AND MARINE*	06/01/2013	$34.45	$7.10	$12.60	$0.00	$54.15
	12/01/2013	$35.20	$7.10	$12.60	$0.00	$54.90
	06/01/2014	$35.95	$7.10	$12.60	$0.00	$55.65
	12/01/2014	$36.70	$7.10	$12.60	$0.00	$56.40
	06/01/2015	$37.45	$7.10	$12.60	$0.00	$57.15
	12/01/2015	$38.20	$7.10	$12.60	$0.00	$57.90
	06/01/2016	$38.95	$7.10	$12.60	$0.00	$58.65
	12/01/2016	$39.95	$7.10	$12.60	$0.00	$59.65
For apprentice rates see "Apprentice- LABORER"						
TEST BORING DRILLER HELPER *LABORERS - FOUNDATION AND MARINE*	06/01/2013	$33.17	$7.10	$12.60	$0.00	$52.87
	12/01/2013	$33.92	$7.10	$12.60	$0.00	$53.62
	06/01/2014	$34.67	$7.10	$12.60	$0.00	$54.37
	12/01/2014	$35.42	$7.10	$12.60	$0.00	$55.12
	06/01/2015	$36.17	$7.10	$12.60	$0.00	$55.87
	12/01/2015	$36.92	$7.10	$12.60	$0.00	$56.62
	06/01/2016	$37.67	$7.10	$12.60	$0.00	$57.37
	12/01/2016	$38.67	$7.10	$12.60	$0.00	$58.37
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TEST BORING LABORER *LABORERS - FOUNDATION AND MARINE*	06/01/2013	$33.05	$7.10	$12.60	$0.00	$52.75
	12/01/2013	$33.80	$7.10	$12.60	$0.00	$53.50
	06/01/2014	$34.55	$7.10	$12.60	$0.00	$54.25
	12/01/2014	$35.30	$7.10	$12.60	$0.00	$55.00
	06/01/2015	$36.05	$7.10	$12.60	$0.00	$55.75
	12/01/2015	$36.80	$7.10	$12.60	$0.00	$56.50
	06/01/2016	$37.55	$7.10	$12.60	$0.00	$57.25
	12/01/2016	$38.55	$7.10	$12.60	$0.00	$58.25
For apprentice rates see "Apprentice- LABORER"						
TRACTORS/PORTABLE STEAM GENERATORS *OPERATING ENGINEERS LOCAL 4*	06/01/2013	$39.96	$10.00	$13.55	$0.00	$63.51
	12/01/2013	$40.74	$10.00	$13.55	$0.00	$64.29
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TRAILERS FOR EARTH MOVING EQUIPMENT *TEAMSTERS JOINT COUNCIL NO. 10 ZONE A*	12/01/2012	$32.42	$9.07	$8.00	$0.00	$49.49
TUNNEL WORK - COMPRESSED AIR *LABORERS (COMPRESSED AIR)*	06/01/2013	$45.33	$7.10	$13.00	$0.00	$65.43
	12/01/2013	$46.08	$7.10	$13.00	$0.00	$66.18
	06/01/2014	$46.83	$7.10	$13.00	$0.00	$66.93
	12/01/2014	$47.58	$7.10	$13.00	$0.00	$67.68
	06/01/2015	$48.33	$7.10	$13.00	$0.00	$68.43
	12/01/2015	$49.08	$7.10	$13.00	$0.00	$69.18
	06/01/2016	$49.83	$7.10	$13.00	$0.00	$69.93
	12/01/2016	$50.83	$7.10	$13.00	$0.00	$70.93
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) *LABORERS (COMPRESSED AIR)*	06/01/2013	$47.33	$7.10	$13.00	$0.00	$67.43
	12/01/2013	$48.08	$7.10	$13.00	$0.00	$68.18
	06/01/2014	$48.83	$7.10	$13.00	$0.00	$68.93
	12/01/2014	$49.58	$7.10	$13.00	$0.00	$69.68
	06/01/2015	$50.33	$7.10	$13.00	$0.00	$70.43
	12/01/2015	$51.08	$7.10	$13.00	$0.00	$71.18
	06/01/2016	$51.83	$7.10	$13.00	$0.00	$71.93
	12/01/2016	$52.83	$7.10	$13.00	$0.00	$72.93
For apprentice rates see "Apprentice- LABORER"						
TUNNEL WORK - FREE AIR *LABORERS (FREE AIR TUNNEL)*	06/01/2013	$37.40	$7.10	$13.00	$0.00	$57.50
	12/01/2013	$38.15	$7.10	$13.00	$0.00	$58.25
	06/01/2014	$38.90	$7.10	$13.00	$0.00	$59.00
	12/01/2014	$39.65	$7.10	$13.00	$0.00	$59.75
	06/01/2015	$40.40	$7.10	$13.00	$0.00	$60.50
	12/01/2015	$41.15	$7.10	$13.00	$0.00	$61.25
	06/01/2016	$41.90	$7.10	$13.00	$0.00	$62.00
	12/01/2016	$42.90	$7.10	$13.00	$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) *LABORERS (FREE AIR TUNNEL)*	06/01/2013	$39.40	$7.10	$13.00	$0.00	$59.50
	12/01/2013	$40.15	$7.10	$13.00	$0.00	$60.25
	06/01/2014	$40.90	$7.10	$13.00	$0.00	$61.00
	12/01/2014	$41.65	$7.10	$13.00	$0.00	$61.75
	06/01/2015	$42.40	$7.10	$13.00	$0.00	$62.50
	12/01/2015	$43.15	$7.10	$13.00	$0.00	$63.25
	06/01/2016	$43.90	$7.10	$13.00	$0.00	$64.00
	12/01/2016	$44.90	$7.10	$13.00	$0.00	$65.00
For apprentice rates see "Apprentice- LABORER"						
VAC-HAUL *TEAMSTERS JOINT COUNCIL NO. 10 ZONE A*	12/01/2012	$31.84	$8.91	$8.00	$0.00	$48.75
WAGON DRILL OPERATOR *LABORERS - ZONE 1*	06/01/2013	$33.30	$7.10	$12.45	$0.00	$52.85
	12/01/2013	$34.05	$7.10	$12.45	$0.00	$53.60
	06/01/2014	$34.80	$7.10	$12.45	$0.00	$54.35
	12/01/2014	$35.55	$7.10	$12.45	$0.00	$55.10
	06/01/2015	$36.30	$7.10	$12.45	$0.00	$55.85
	12/01/2015	$37.05	$7.10	$12.45	$0.00	$56.60
	06/01/2016	$37.80	$7.10	$12.45	$0.00	$57.35
	12/01/2016	$38.80	$7.10	$12.45	$0.00	$58.35
For apprentice rates see "Apprentice- LABORER"						
WASTE WATER PUMP OPERATOR *OPERATING ENGINEERS LOCAL 4*	06/01/2013	$40.34	$10.00	$13.55	$0.00	$63.89
	12/01/2013	$41.12	$10.00	$13.55	$0.00	$64.67
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
WATER METER INSTALLER *PLUMBERS & GASFITTERS LOCAL 12*	03/01/2013	$49.31	$9.32	$13.29	$0.00	$71.92
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"						
Outside Electrical - East						
CABLE TECHNICIAN (Power Zone) *OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104*	03/03/2013	$25.18	$8.20	$4.17	$0.00	$37.55
	09/01/2013	$25.66	$8.70	$4.48	$0.00	$38.84
For apprentice rates see "Apprentice- LINEMAN"						
CABLEMAN (Underground Ducts & Cables) *OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104*	03/03/2013	$35.67	$8.20	$4.98	$0.00	$48.85
	09/01/2013	$36.55	$8.70	$6.58	$0.00	$51.83
For apprentice rates see "Apprentice- LINEMAN"						
DRIVER / GROUNDMAN CDL *OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104*	03/03/2013	$29.38	$8.20	$5.68	$0.00	$43.26
	09/01/2013	$29.94	$8.70	$6.05	$0.00	$44.69
For apprentice rates see "Apprentice- LINEMAN"						
DRIVER / GROUNDMAN -Inexperienced (<2000 Hrs) *OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104*	03/03/2013	$23.08	$8.20	$3.94	$0.00	$35.22
	09/01/2013	$23.52	$8.70	$5.24	$0.00	$37.46
For apprentice rates see "Apprentice- LINEMAN"						
EQUIPMENT OPERATOR (Class A CDL) *OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104*	03/03/2013	$35.67	$8.20	$8.98	$0.00	$52.85
	09/01/2013	$36.35	$8.70	$9.43	$0.00	$54.48
For apprentice rates see "Apprentice- LINEMAN"						
EQUIPMENT OPERATOR (Class B CDL) *OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104*	03/03/2013	$31.48	$8.20	$6.19	$0.00	$45.87
	09/01/2013	$32.08	$8.70	$6.59	$0.00	$47.37
For apprentice rates see "Apprentice- LINEMAN"						
GROUNDMAN *OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104*	03/03/2013	$23.08	$8.20	$3.42	$0.00	$34.70
	09/01/2013	$23.52	$8.70	$3.72	$0.00	$35.94
For apprentice rates see "Apprentice- LINEMAN"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
GROUNDMAN -Inexperienced (<2000 Hrs.) *OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104*	03/03/2013	$18.89	$8.20	$2.61	$0.00	$29.70
For apprentice rates see "Apprentice- LINEMAN"	09/01/2013	$19.25	$8.70	$2.85	$0.00	$30.80
JOURNEYMAN LINEMAN *OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104*	03/03/2013	$41.97	$8.20	$11.26	$0.00	$61.43
	09/01/2013	$42.77	$8.70	$11.78	$0.00	$63.25

Apprentice - *LINEMAN (Outside Electrical) - East Local 104*

Effective Date - 03/03/2013

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	$25.18	$8.20	$3.92	$0.00	$37.30
2	65	$27.28	$8.20	$4.36	$0.00	$39.84
3	70	$29.38	$8.20	$5.06	$0.00	$42.64
4	75	$31.48	$8.20	$5.76	$0.00	$45.44
5	80	$33.58	$8.20	$6.46	$0.00	$48.24
6	85	$35.67	$8.20	$7.17	$0.00	$51.04
7	90	$37.77	$8.20	$8.36	$0.00	$54.33

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 *OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104*	07/16/2012	$26.33	$4.18	$2.79	$0.00	$33.30
TELEDATA LINEMAN/EQUIPMENT OPERATOR *OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104*	07/16/2012	$24.78	$4.18	$2.74	$0.00	$31.70
TELEDATA WIREMAN/INSTALLER/TECHNICIAN *OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104*	07/16/2012	$24.78	$4.18	$2.74	$0.00	$31.70
TREE TRIMMER *OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104* This classification applies only to the trimming of branches on and around utility lines.	01/29/2012	$17.18	$3.37	$0.00	$0.00	$20.55
TREE TRIMMER GROUNDMAN *OUTSIDE ELECTRICAL WORKERS - EAST LOCAL 104* This classification applies only to the trimming of branches on and around utility lines.	01/29/2012	$15.15	$3.37	$0.00	$0.00	$18.52

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

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.

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

NOTICE TO AWARDING AUTHORITIES

- 'The enclosed wage schedule applies only to the specific project listed at the top and will be updated for any public construction project lasting longer than one (1) year.
- 'You should request an updated wage schedule from the Division of Occupational Safety if you have not opened bids or selected a contractor within 90 days of the date of issuance of the enclosed wage schedule.
- 'The wage schedule shall be incorporated in any advertisement or call for bids for the project for which it has been issued.
- 'Once a contractor has been selected by the awarding authority, the wage schedule shall be made a part of the contract for that project.

NOTICE TO CONTRACTORS

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

WEEKLY PAYROLL RECORDS REPORT
& STATEMENT OF COMPLIANCE

In accordance with Massachusetts General Law c149, §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.

In addition, each such contractor, subcontractor or public body shall furnish to the Department of Labor & Workforce Development/Division of Occupational Safety within fifteen days after completion of its portion of the work a statement, executed by the contractor, subcontractor or public body who supervises the payment of wages, in the following form:

STATEMENT OF COMPLIANCE

_____, 2013

I,_____,_____
(Name of signatory party) (Title)
do hereby state:
That I pay or supervise the payment of the persons employed by
_____ on the _____
(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 _____

DIVISION OF OCCUPATIONAL SAFETY, 399 WASHINGTON STREET, 5TH FL., BOSTON, MA. 02108

WEEKLY PAYROLL REPORT FORM

Company Name:

Project Name:

Awarding Auth.:

Work Week Ending:

Prime Contractor

Subcontractor
List Prime Contractor:

Employer Signature:

Print Name & Title:

Employee Name & Address	Work Classification	Hours Worked							(A) Tot. Hrs.	(B) Hourly Base Wage	Employer Contributions			(F) [B+C+D+E] Hourly Total Wage (prev. wage)	(G) [A*F] Weekly Total Amount
											(C) Health & Welfare	(D) Pension	(E) Supp. Unemp.		
		S	M	T	W	T	F	S							

NOTE: Every contractor and subcontractor is required to submit a copy of their weekly payroll records to the awarding authority.

END OF SECTION

SECTION 01 10 00

SCOPE OF THE WORK

PART 1 - GENERAL

1.01 GENERAL CONDITIONS

A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

B. Examine all the other Sections of the Specifications for requirements which affect work of this Section whether or not such work is specifically mentioned in this Section.

C. Coordinate work with that of all other sections affecting, or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

D. It is understood that the Contractor has examined the site and made his own estimates of the facilities and difficulties attending to the execution of the work, and has based his price thereon

E. Except for unforeseeable, concealed or subsurface conditions, as determined by the Architect, the Contractor shall make no claim for additional cost due to existing conditions at the site, which in the opinion of the Architect, with reasonable diligence could have been ascertained by the Contractor in his examination of the site

1.02 LOCATION OF WORK

A. The work of this Contract shall be performed at the Crafts Street DPW Maintenance Yard, 110 Crafts Street, Newton Massachusetts.

1.03 GENERAL SCOPE OF WORK

A. The work to be done consists:

1. Provide two (2) fabric membrane storage structures and concrete block foundations.
2. Provide new cedar fencing and selective replacement of existing fencing.

NEW SALT & EQUIPMENT STORAGE SHEDS
CRAFTS STREET DPW MAINTENANCE YARD
NEWTON, MASSACHUSETTS

B. The General Contractor shall furnish and do everything, except as otherwise provided by specific notations herein or on the drawings, necessary to complete the work in accordance with the Plans and Project Manual. He shall furnish all plant, labor, materials, supplies, tools, water, machinery, implements, light, power, transportation, and other facilities required, and do all work necessary for the complete execution and completion of the Contract, except that work or materials specifically stated to be done or furnished by others.

C. All work and materials furnished and installed shall be of the best quality and workmanship, and to the satisfaction of the Architect. There shall be no defect in the work or the operation thereof due to inferior materials or the workman like placing of any part. The work under this contract shall be performed at such times as may be necessary to facilitate the orderly progress of the work. It is the intention of these Specifications and Plans to cover all work necessary and incidental to the completion of this project, including all trades, as shown on the drawings or specified.

D. Contractor shall provide all finish work as necessary to provide the finished results shown on the Contract Drawings and as herein specified.

1.04 LIST OF DRAWINGS dated 8/29/13

Plan No.	Description
GENERAL	
T1	TITLE SHEET
ARCHITECTURAL	
A1	SITE PLAN
A2	PLANS, SECTIONS, ELEVATIONS AND DETAILS

END OF SECTION

SECTION 01 23 00

ALTERNATE

PART 1 - GENERAL

1.01 GENERAL CONDITIONS

A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

B. Examine all the other Sections of the Specifications for requirements which affect work of this Section whether or not such work is specifically mentioned in this Section.

C. Coordinate work with that of all other sections affecting, or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

D. It is understood that the Contractor has examined the site and made his own estimates of the facilities and difficulties attending to the execution of the work, and has based his price thereon

E. Except for unforeseeable, concealed or subsurface conditions, as determined by the Architect, the Contractor shall make no claim for additional cost due to existing conditions at the site, which in the opinion of the Architect, with reasonable diligence could have been ascertained by the Contractor in his examination of the site.

1.02 ALTERNATES

A. General bidders must submit a bid on all the alternate proposals requested.

B. All filed sub-bidders must submit a bid on any alternate proposal that affects the work under their Section of the contract documents. Review the plans and specifications carefully to determine the scope of work under each of the alternates.

C. If no change in price is to be indicated, the word " No Change" shall be used; do not use the term "No Bid".

D. Description of the alternate proposals requested is as follows:

PROPOSED ALTERNATES

Alternate No. 1: Wood Clad Gable End Wall.

1.03 BID FORM

A. All bidders shall insert in spaces provided on the bid form the amount to be added or subtracted from their bids for Alternates No. 1.

END OF SECTION

SECTION 01 31 00

CONSTRUCTION SCHEDULING AND PHASING

PART 1 - GENERAL

1.01 GENERAL CONDITIONS

A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

B. Examine all the other Sections of the Specifications for requirements which affect work of this Section whether or not such work is specifically mentioned in this Section.

C. Coordinate work with that of all other sections affecting, or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

D. It is understood that the Contractor has examined the site and made his own estimates of the facilities and difficulties attending to the execution of the work, and has based his price thereon

E. Except for unforeseeable, concealed or subsurface conditions, as determined by the Architect, the Contractor shall make no claim for additional cost due to existing conditions at the site, which in the opinion of the Architect, with reasonable diligence could have been ascertained by the Contractor in his examination of the site

1.02 DESCRIPTION OF WORK

A. This Section specifies the construction phasing and scheduling of the work.

B. This Section also specifies the requirements and limitations that will be imposed during the execution of the work. Before any construction commences, the contractor must submit a CPM schedule that identifies weekly activities for the duration of the project for approval by the Architect and Owner within 20 days of the Notice to Proceed and/or contract.

1.03 SUBMITTALS

A. The Contractor shall submit to the Architect for approval, a Construction Schedule in accordance with the requirements and limitations hereinafter specified.

PART 2 - PRODUCTS

(Not Used)

PART 3 - EXECUTION

3.01 COORDINATION

A. Upon receipt of bids and execution of the contract the contractor shall submit within 20 days all materials and shop drawings for review and approval. The work of removal, modifications and/or replacement of materials and equipment shall not proceed until all new items are on site.

B. During the initial stage of the project, a mandatory coordination meeting will required.

C. During the course of the work the Contractor shall, through a series of mandatory weekly meetings, continually appraise the Architect and the Facility Representative on the progress of the work and the scheduling of work yet to be done.

D. The Contractor shall coordinate his work with the Facility Representatives in order that disruption to traffic flows and schedules are held to a minimum.

END OF SECTION

SECTION 01 33 00

SUBMITTALS

PART 1 - GENERAL

1.01 GENERAL CONDITIONS

A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

B. Examine all the other Sections of the Specifications for requirements which affect work of this Section whether or not such work is specifically mentioned in this Section.

C. Coordinate work with that of all other sections affecting, or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

D. It is understood that the Contractor has examined the site and made his own estimates of the facilities and difficulties attending to the execution of the work, and has based his price thereon

E. Except for unforeseeable conditions, as determined by the Architect, the Contractor shall make no claim for additional cost due to existing conditions at the site, which in the opinion of the Architect, with reasonable diligence could have been ascertained by the Contractor in his examination of the site

1.02 SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

A. Shop drawings will be required within 20 days of the Notice to Proceed or Contract.

B. Samples:

1. Office samples of sufficient size and quantity shall clearly illustrate:

a. Functional characteristics of product or material, with integrally related parts and attachment devices.

C. General Contractor's Responsibilities:

1. Coordinate each submittal with requirements of contract documents.

2. The general contractor's responsibility for errors and omissions in submittals is not relieved by the Architect's review and approval of submittals.

3. Notify the Architect in writing at time of submission, of deviations in submittals from requirements of contract documents or previous submissions.

4. Work that requires submittals shall not commence unless submittals with Architect's stamp and initials or signature indicating review and approval.

5. After Architect's review and approval, distribute copies.

D. Submission Requirements:

1. Make submittals promptly in accordance with approved schedules, and in such sequence as to cause no delay in the work.

2. Shop drawings shall be submitted in accordance with Article 3, Section 3.12 of the Amendments and Supplements to AIA General Conditions.

3. Submit number of samples specified in each Section of the Specification.

4. Forward submittals with transmittal letter, in duplicate.

5. Submittals shall include:

   a. Date and revision dates
   b. Project title and number
   c. The names of:
      1) Architect
      2) General Contractor
      3) Sub-contractor
      4) Supplier
      5) Manufacturer
      6) Separate detailer when pertinent
   d. Identification of product or material
   e. Relation to adjacent structure or materials
   f. Field dimensions, clearly identified as such
   g. Specification section number
   h. Applicable standards, such as ASTM number
   I. A blank space, five-inch by four-inch, for designer's stamp
   j. Identification of deviations from contract documents
   k. Contractor's stamp, initialed or signed certifying review and approval of submittal.

E. Re-submission Requirements:

1. Product Data and Samples: Submit new data and samples as required from previous submittals.

F. Distribution of Submittals After Review and Approval:

1. Distribute copies of shop drawings and product data that display the Architect's stamp to appropriate sub-contractors.
2. Distribute one approved copy of shop drawings and product data to the project manager.
3. Distribute samples as directed by the Architect.

END OF SECTION

SECTION 01 70 00

CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 GENERAL CONDITIONS

A. Drawings and general provisions of the contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

B. Examine all the other Sections of the Specifications for requirements which affect work of this Section whether or not such work is specifically mentioned in this Section.

C. Coordinate work with that of all other sections affecting, or affected by work of this Section. Cooperate with such trades to assure the steady progress of all work under the Contract.

D. It is understood that the Contractor has examined the site and made his own estimates of the facilities and difficulties attending to the execution of the work, and has based his price thereon

E. Except for unforeseeable conditions, as determined by the Architect, the Contractor shall make no claim for additional cost due to existing conditions at the site, which in the opinion of the Architect, with reasonable diligence could have been ascertained by the Contractor in his examination of the site

1.02 FINAL CLEANING

A. Unless otherwise specified under the various sections of the specifications, the general contractor shall perform final cleaning operations as herein specified prior to final inspection.

B. Maintain project site free from accumulations of waste, debris, and rubbish, caused by operations. At completion of work, remove water, materials, rubbish, tools, equipment, machinery and surplus materials, and clean all sight-exposed surfaces; leave project clean and ready for occupancy.

C. Cleaning shall include all surfaces, on which the general contractor has performed work and has used as access to areas where work was performed whether existing or new.

D. Refer to sections of the specifications for cleaning of specific products or work.

E. Use only those materials which will not create hazards to health or property and which will not damage surfaces.

F. Use only those cleaning materials and methods that are recommended by the manufacturer or surface material to be cleaned.

G. Employ experienced workmen, or professional cleaners, for final cleaning operations.

H. Remove grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels, and other foreign materials from sight-exposed interior and exterior surfaces.

1.03 RECORD DRAWINGS

A. Record drawings shall consist of **all** the contract drawings.

B. The general contractor shall be required to maintain one set of record drawings, as the work relates to their sections of the specifications at the site.

C. The record drawings shall be stored and maintained in the general contractor's office apart from other documents used for construction. The record drawings shall be maintained in a clean, dry and legible condition and shall not be used for construction purposes.

D. Record drawings, as submitted by the general contractor, shall be verified in the field by the Architect or his consultants. Verification by the Architect shall occur during the construction process and prior to the related work being completed and covered up.

E. The record drawing shall be available at all time for inspection by the Architects. All deficiencies noted shall be promptly corrected.

F. The following information shall be indicated on the record drawings:

1. Record all changes, including change orders, in the location, size, number and type both horizontally and vertically of all elements of the project which deviate from those indicated on all the contract drawings.
2. The tolerance for the actual location of utilities and appurtenances within the building to be marked on the record drawings shall be plus or minus two (2) inches.
3. The location of all underground utilities and appurtenances referenced to permanent surface improvements, both horizontally and vertically at ten (10) feet intervals and at all changes of direction.
4. The location of all internal utilities and appurtenances, concealed by finish materials, including but, not limited to valves, coils, dampers, vents cleanouts, strainers, pipes, junction boxes, turning vanes, variable and constant volume boxes, ducts, traps and maintenance devices. The location of these internal utilities, appurtenances and devices shall be shown by offsets to the column grid lines on the drawings.
5. Each of the utilities and appurtenances shall be referenced by showing a tag number, area served and function on the record drawings.

G. At the end of each month and before payment for materials installed, the general contractor, his subcontractors, and the Architect shall review record drawings for purpose of payment. IF THE CHANGES IN LOCATION OF ALL INSTALLED ELEMENTS ARE NOT SHOWN ON THE RECORD DRAWINGS AND VERIFIED IN THE FIELD, THEN THE MATERIAL SHALL NOT BE CONSIDERED AS INSTALLED AND PAYMENT WILL BE WITHHELD.

H. At the completion of the contract, each subcontractor shall submit to the general contractor a complete set of his respective record drawings indicating all changes. After checking the above drawings, the general contractor shall certify in writing on the title sheet of the drawings that they are complete and correct and shall submit the record drawings to the Architect. The contractor shall submit an electronic version of the Record Drawings along with a hard copy.

1.04 CLOSEOUT REQUIREMENTS AND SUBMITTALS

A. Substantial Completion: As the project nears completion, the G.C. shall issue a list of incomplete items or items that need to be corrected (punchlist), to the Architect. The Architect shall review the list, make a visit to continue or dispute the list, and issue a Certificate of Substantial Completion if deemed to be such.

B. Final Inspection:
1. The general contractor shall submit written certification that:
   a) Project has been inspected for compliance with contract documents and has satisfied the Building Department and local Fire Department.
   b) Equipment and systems have been tested in the presence of Architect and are operational and satisfactory.
   c) Project is completed, and ready for final inspection.
2. Building Department Use and Occupancy Permit:
   a) Arrange for a final inspection and secure the signed Certificate of Inspection for Use and Occupancy from the Building Department.

1.05 GUARANTEES AND WARRANTIES

A. Submit to the Architect all extended guarantees and warranties that have been specified in various, individual sections of the specifications.

END OF SECTION

SECTION 13 34 00

FABRIC MEMBRANE COVERED STRUCTURES

PART 1 A

1.1 SUMMARY

A. This specification covers the design, manufacture, shipping, handling and erection of a prefabricated membrane covered structure.

B. The specification as heretofore set forth is general in nature and scope and shall not be construed as to limit the work other than the requirement that the new re-locatable building shall match the specification in materials, appearance, configuration and details.

C. It is the intent of this specification that the bidder shall include all labor, materials, equipment services and transportation to locate the building on the site designated with all other work.

D. Buildings shall be complete and operating and shall include all exterior and interior materials and systems as shown or indicated in contract documents.

E. All workmen shall be skilled and qualified for the work that they perform. All materials used, unless otherwise specified, shall be new and of the types and grades specified. The contractor shall certify that no asbestos containing building materials that exceed Federal mandated safe asbestos levels have been used in the construction of the membrane-covered structure.

F. Work shall be performed as necessary and required for the construction of the project as indicated. Such work includes the supply and installation of a membrane-covered structure complete with exterior and interior finishes. The building shall be as dimensioned with all features and quantities as per specification.

1.2 SCOPE OF WORK

A. Rigid steel frame supporting membrane covered roof and wall structure of the type described herein and as indicated on the drawings:
   a. Flat gable ends: Size and location as indicated on the drawings.
   b. Door opening on front wall to be fabric gathering door
   c. Termination of Fabric to Concrete Wall System

B. Concrete Block Foundation / Wall System and Anchors (Engineered and provided as part of this work)

C. Site Work (by others)

D. Delivery to Site

E. Complete Foundation, Structure & Accessory Installation

F. Stamp Engineering drawing by Massachusetts P.E.

1.3 SUBMITTALS

A. Upon award of this contract, The Contractor shall furnish detailed shop drawings and material cut sheets for all work. Drawing shall be stamped by an engineer certified by the State of Mass. to verify compliance to local building code.

B. All work to be performed under the conditions of this specification shall comply with the rules and regulations of all agencies having jurisdiction for this classification of construction and design and shall conform to the applicable live loads due to wind, rain and snow.

C. Membrane certification complying with NFPA log.

1.4 QUALITY ASSURANCE

A. Building supplier must provide written certification that they have been in the steel tension membrane building business for 5 years or more under the same name with bid.

B. Building supplier must provide written references with contact information for at least three salt sheds currently in operation which have a footprint in excess of 5000 ft² with bid.

1.5 WORKMANSHIP

A. The workmanship of all materials and components of the structure shall be commensurate with the functional requirements of the item.

B. Building prefabrication shall be performed under factory conditions in a plant specifically arranged for this type of work. Contractor shall provide adequate space, equipment, personnel, and technical ability to coordinate the assembly and factory prefabrication of all major components of the work and all necessary operations in the packing, shipping and installation procedures. No fabrication shall be done until the materials have been tested and approved.

C. Welding: Welding shall be employed only when specified in the original design. As per Section 1704.2 of IBC, the truss fabricator must be an Approved Welding Fabricator. Successful bidder MUST supply CWS and/or AWS certificate of approval.

D. On Site Welding: If welding is required on site, no welding shall be started until the AWS welding inspector has inspected and approved the materials, joint preparation, equipment and the qualifications of the welders. Welders doing unsatisfactory work will be removed and required to pass qualification tests again before returning to work.

E. Manufacturer: The structure supplier shall be a reputable manufacturer, shall have a direct experience in the design, manufacture and installation of structures of the type specified herein; shall operate according to a comprehensive quality system and shall provide three references with structures in use for at least five years which are clear span and each must enclose an area in excess of the square footage of the larger building of this project.

PART 2 A

2.1 PRODUCTS

A. General

1. The membrane shall be tensioned over the framework. The structure shall be rectangular in shape with vertical gable end walls. The interior of the structure below the main trusses shall be clear span free of any structural support members and shall provide unobstructed floor space. No exterior purlins, guy ropes or cables shall be used for anchoring the structure.

2. The structure shall include accessories to the extent shown on the project drawings required for the scope and intended use for:
   a. Overhead doorways
   b. Ventilation systems.
   c. Other structure accessories

3. Acceptable Manufacturers: Subject to compliance with the requirements specified herein, the following structures may be incorporated into the work:
   a. Calhoun Structures VP Series
   b. Fabri-Structure Custom Structure
   c. Span-Tech Buildings Custom Width Leg Profile Structure or equal

B. Design Requirements - Structural Frame

1. Roof and Wall Surfaces: To provide for maximum compatibility with standard door, window, ventilation and other accessory and cladding systems, the structure shall be designed such that roof and gable side wall surfaces form flat planes.

2. Purlin Spacing: To provide for structural stability and to provide for installation of accessory items, the main structural trusses shall be laterally braced by load bearing purlins at intervals required by the truss design.

3. Wind and Frame Bracing: The structure shall be appropriately stabilized with wind bracing cable as well as any required secondary node restraint assemblies so as to efficiently transfer wind, snow and seismic induced stresses to the foundation/anchoring system. Cable diameter for main wind bracing shall be a minimum of 5/16" diameter and larger if so required. The end bays of the structure shall be designed to be X - braced early during installation to allow for permanent stability of the frame during installation.

4. Connecting Joints: Connections between structural elements shall be designed so as to transfer the compressive and tensile forces present in a given joint. A minimum of Grade 5 bolts shall be used at each truss chord joint. Primary axial steel, secondary purlins, and end wall frame connections shall be made with a minimum of Grade 5 hex bolts, carriage bolts and self drilling screws.

5. Mechanical Equipment Interface: The main structural roof trusses shall allow for installation of electrical and mechanical equipment based on collateral loads as defined in section 2.2.2. Likewise, the structure shall accept penetrations through the membrane for access doors and mechanical services with minimal modification.

6. Ancillary Systems: The structure shall be designed such that it can be readily retrofitted with insulation systems and other ancillary systems such as lighting, sprinklers, HVAC, provided collateral load factors are taken into account.

7. Alternative Cladding materials: The structure shall be designed such that alternative covering materials such as metal wall cladding can be added with minimal modification, if required (provided collateral load factors are taken into account).

8. Shipping: The main structural trusses shall be standard planar-style trusses which nest tightly together in order to minimize shipping and storage volume.

C. Design Requirements - Membrane Cladding System

1. Membrane: The roof membrane shall form a weather tight shell over the structural frame. In order to provide for a good finished appearance and to insure weather tightness, the membrane shall be assembled and tensioned, in a manner to minimize wrinkles in hot and cold temperatures.

2. The gable wall membrane cladding shall be manufactured and connected to form one piece to the adjacent end wall and roof cladding.

3. Roof membrane horizontal stretch shall be maintained with horizontal purlins requiring no ongoing maintenance. Vertical stretch shall be maintained with a winch lock system (locked with cotter pins) requiring minimal ongoing maintenance.

4. Base Tensioning System: The membrane cladding will be provided with a mechanical tensioning system that allows the membrane to be fully tensioned around the structure perimeter. The system will be designed such that the membrane can be tightly and neatly secured over the structural frame and such that the system has remaining range of adjustment.

5. Membrane Seal at Openings and Base: The Dealer supplying the structure will provide all materials and methods necessary to fully tension and seal the membrane material around all door, ventilation and other openings as well as around the structure perimeter below the main tensioning system. This seal shall provide a neat and finished appearance and eliminate any loose membrane cladding that could otherwise be damaged by flapping or abrasion.

6. The membrane shall not be designed to function as a structural member such that, should any damage to or penetrations of the membrane occur, the integrity of the structural framework shall not be affected.

7. The Contractor shall provide drawings and calculations acceptable to the Architect/Engineer of Record, meeting the provisions of the applicable State Building Code. The Contractor shall bear all costs for production of drawings and associated structural calculations. Contractor shall make all revisions and corrections to those documents required for approval and shall resubmit as required to obtain approvals.

8. Successful bidders shall make all required changes or corrections and will deliver to the Owner's Architect all approved drawings and reactions.

2.2 ENGINEERED DESIGN CRITERIA

A. The structure shall be designed per Chapter 16 of the 2009 International Building Code using methodology as per the ASCE 7 standard referenced from the applicable building code. Primary and secondary framing shall comply with current issues of AISC, AISI, NEMA and ASTM specifications, as applicable. Structural members shall be designed using Allowable Stress Design (ASD) or Load Resistance Factored Design (LRFD) for the design loads given below. Appropriate safety factors to yield and ultimate shall be maintained. Wind load factors and coefficients used in design of structural members must be in accordance with the applicable ASCE 7 guidelines.

B. The structure must be designed as unheated with a thermal factor(Ct) of 1.2 and an importance factor(*I*) of .8

C. Snow Loads: The structure shall be designed based upon a minimum ground snow load of 65 pounds per square foot (Psf). At a minimum, the structure shall be capable of supporting a flat roof snow load of 50 pounds per square foot and a collateral load of 0.25 pounds per square foot projected over the entire roof area or portion of the roof area, and any probable arrangement of loading resulting in the highest stress in the members.(or as prescribed by the applicable building code)

D. Wind Loads: The structure shall be capable of withstanding a basic wind speed (3-second gust) from any direction of 105 miles per hour. The design wind pressure shall be based on an exposure category of C and appropriate wind load factors and coefficients in accordance with the applicable referenced ASCE 7 guidelines. In no event shall the wind load used in the design of the main wind force resisting system be less than 10 pounds per square foot multiplied by the area of the building or structure projected on a vertical plane that is normal to the wind direction (or as prescribed by the applicable building code).

E. Rainfall: The structure shall be capable of withstanding the effects of rainfall up to 4 inches per hour for at least 2 hours.

F. Deflection: For safety of specified or future suspended accessories, the maximum allowable deflection of structural members shall be no more than 1/180 of the clear span of that member when subjected to the design loads described herein.

G. Design Loads: The design shall be based as a minimum on the following design loads. Each member shall be designed to withstand stresses resulting from combinations of design loads that produce maximum percentage of actual to allowable stress in that member as per referenced ASCE 7 standard from applicable building code.

D= Dead Load + Collateral Load
S= Symmetrical Snow or Live Load (Balanced or Unbalanced)
Ws = Wind with internal suction
Wp = Wind with internal pressure
E = Earthquake

2.3 OPERATION AND USE

A. The main structural frame shall be designed to provide a minimum 15-year operational use period with appropriate inspection and maintenance.

B. The structure shall be capable of being assembled, operated, and dismantled in all ambient temperatures between -20°F and 120°F.

2.4 MATERIALS

A. All materials used in the structure shall be new, without defects and free of repairs. The quality of the materials used shall be such that the structure is in conformance with the performance requirements as specified herein.

B. Cladding Membrane: The structure shall be clad with an FRU coated polyolefin membrane manufactured by an approved and reputable supplier with demonstrated long-term performance. The membrane fabric shall be waterproof and free from defects. All roofs, walls, end walls and connecting sections shall be weather tight. The

material will be selected from the manufacturer's standard colors for the sidewalls and roof panels. One color shall be a translucent white. A second color for gable ends shall be selected by the Architect. The material scrim and coating must be UV stabilized, fire retardant, and must carry a minimum ten-year manufacturer's warranty and have a minimum life expectancy of 10 to 15 years. The minimum Polyolefin fabric specification is as follows:

Total Fabric Weight	12.6 oz/yd² +/- 5%
Coating Thickness	3.9 mils average, each side
Finished Thickness	24 mils (ASTM D-5199)
Grab Tensile Strength	408 lbs warp/452 lbs weft (ASTM D-751)
Strip tensile Strength	229 lbs/in warp/254lbs/in weft (ASTM D-4851)
Tongue Tear Strength	88lbs warp/109 lbs weft (ASTM D-2261)
Trapezoidal Tear	83 lbs warp/106lbs weft (ASTM D-4533)
Low Temperature Bend	-131F (ASTM D-2136)
Flame Resistance per NFPA 701 L	

Acceptable membrane suppliers include: Intertape, Fabrene, and Hagihara. The membrane manufacturer must demonstrate a minimum of five years successful field experience with provision of polyolefin membrane cladding in use on similar or larger size structures of the type contemplated in this specification.

C. Metal: The main structure shall consist of a welded truss arches with parallel tube chords separated apart by webbing. Truss sections are manufactured and post dip galvanized to insure proper protection on the inside as well as the external surfaces of the truss sections. All sections must be post dipped galvanized post fabrication to a minimum of CSA G-164 / ASTM A123-09. Truss will be manufactured of a cold-formed and induction welded modified grade carbon steel, providing a finished tubular product with exceptional mechanical and corrosion resistant properties.

D. Tolerances: All dimensional tubing tolerances are in accordance with ASTM A500, Section 10.

E. Tubing shall be manufactured using steel conforming to ASTM A568, ASTM A1011 and G40.21 350W. Finished steel tubing used in the structure must have the following minimum structural and mechanical properties based on standard ASTM A500:

ASTM A500 Grade C: Tension Ultimate: 55 KSI and Yield: 46 KSI
ASTM A500 Grade B: Tension Ultimate: 55 KSI and Yield: 42 KSI G40.21
350W: Tension Ultimate: 55 KSI and Yield: 50 KSI

F. All steel flat bar, cross rods and other steel components shall be fabricated from hot dipped galvanized material, meet the stated standards and have the following minimum structural and mechanical properties (ASTM 44W):

Tensile: 50 KSI and Yield: 44 KSI

G. Corrosion Protection: as per 2.4.3 all Metal sections shall be hot dipped galvanized to a minimum of CSA G-164 / ASTM A123-09. This allows for maximum protection on all welded surfaces including the interior sections. Flow coat process will not be acceptable (Commonly referred to as inline galvanizing).

H. Hardware:

1. Bolts: Bolts subject to extreme stress and wear shall be structural bolts of Grade 5 and plated / galvanized that has been upgraded with a corrosion resistant topcoat finish. All bolts shall be installed and securely torqued so as to prevent change in tightness. Those subject to removal or adjustment shall not be swaged, peened, staked or otherwise installed.

1. Membrane Tensioning Hardware: The fabric membrane shall be tensioned with load rated hardware which is plated/hot dip galvanized so as to prevent corrosion. Hardware shall allow full and free rotation at the foundation connection to avoid fatigue failure of threaded assemblies.

2. Membrane Tensioning Webbing: The membrane shall be tensioned with load-tested tie-downs.

3. Cable Assemblies: Main and wind bracing cable assemblies shall be manufactured to the required length and press swaged with metal sleeves. The cables are manufactured using preformed 7-19 stainless steel cables, sized with appropriate safety factors.

3/16” dia. = 4,200 lbs.

1/4" dia.	=	7,000 lbs.
5/16" dia.	=	9,800 lbs.
3/8" dia.	=	14,400 lbs.
1/2" dia.	=	22,800 lbs

4. Other Fasteners: Non-structural fasteners such as wood screws, Tek screws, etc., shall be of standard commercial quality

5. Exterior Trim: The aluminum alloy used in the extrusion shall meet or exceed 6063-T6.

I. Piece marking and Identification: All individual parts or bundles and packages of identical parts are to be clearly marked for identification. Bolts, nuts, washers and fasteners shall be packaged according to type, size and length. Shipping documentation shall include a list showing the description, quantity and piece mark of the various parts, components and elements.

J. Material Delivery: The building system materials shall be delivered to the project site during normal working hours on weekdays. Installation contractor will provide adequate workmen and equipment to promptly unload, inspect and accept material delivery.

K. Handling: The installation contractor shall be responsible for unloading, field storage, protection and transfer to the work area of all materials and equipment required to perform the work. At no time shall materials be dropped, thrown or dragged over the transport equipment or the ground. Damage to any piece under its own or superimposed weight shall be cause for repair or replacement.

L. Short, Damaged or Excess Materials: Installation contractor shall inspect, count and verify quantities based on the shipping documents.

PART 3 A

3.1 REFERENCES AND STANDARDS

A. The following publications are for the standards listed below but referred to within the document by basic letter designation only. They form a part of this specification to the extent referenced thereto:

a. American Institute of Steel Construction (AISC):

S326-78	Design, Fabrication and Erection of Structural Steel Buildings
S329-85	Structural Joints Using ASTM A325 or A490 Bolts.

b. American Iron and Steel Institute (AISI)

SG 503-76	The Design of Fabrication of Cold-Formed Steel Structures

c. American Society for Testing and Materials (ASTM):

A 36-89	Structural Steel
A 123 A-89	Standard Specification for Zinc (Hot Dip Galvanized) Coatings on Iron and Steel Products
A 307-89	Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength
A 325-89	High-Strength Bolts for Structural Steel Joints
A 500 A-90	Standard Specification for Cold Formed Welded And Seamless Carbon Steel Structural Tubing in Rounds and Shapes
A 563 Rev A-89	Carbon and Alloy Steel Nuts
A 687-89	High-Strength Non-Headed Steel Bolts and Studs.

d. American Society of Civil Engineers (ASCE) Minimum Design Loads for Building and Other Structures. Latest edition as required by State Code.

ASCE 7-02	American Society of Civil Engineers
ASCE 7-05	American Society of Civil Engineers

ASCE 7-08	American Society of Civil Engineers

e. American Welding Society (AWS)

D1.1-2004	Structural Welding Code-Steel
D1.3-98	Structural Welding Code-steel sheet steel

f. National Fire Protection Association

NFPA 701-89.1	Standard methods of Fire Tests for Flame Resistant Textiles and Films. Small and Large Scale Test.
NFPA 701-96	Standard methods of Fire Tests for Flame Resistant Textiles and Films. Test Method 1 and Test Method 2.

PART 1.B - FOUNDATION

1.1 SECTION INCLUDES

A. This specification covers the materials for and manufacture of precast reinforced concrete units produced in accordance with the plans and these specifications.

1.2 REFERENCES

Where applicable, the latest editions of the following standards shall be considered a part of these specifications. In case of conflict, these specifications shall take precedence over the listed standard. (See also Concrete Materials)

A. American Association of State Highway and Transportation Officials (AASHTO)

1. "Standard Specification for Highway Bridges"
2. "Guide Specifications for Structural Design of Sound Barriers"

B. ACI 304 – Guide for Measuring, Mixing, Transporting and Placing Concrete

C. ACI 318 - Building Code Requirements for Reinforced Concrete

D. ASTM C478 - Specification for Precast Reinforced Concrete Manholes Sections

E. ASTM C825 - Standard Specification for Precast Concrete Barriers

F. ASTM C857 - Standard Practice for Minimum Structural Design Loading for Underground Precast Concrete Utility Structures

G. ASTM C858 - Standard Specification for Underground Precast Concrete Utility Structures"

H. ASTM C890 - Standard Practice for Minimum Structural Design Loading for Monolithic or Sectional Precast Concrete Water and Wastewater Structures

I. ASTM C913 - Standard Specification for Precast Concrete Water and Wastewater Structures

J. ASTM C915 - Standard Specification for Precast Reinforced Concrete Crib Wall Members

K. ASTM C923 – Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes and Laterals

L. ASTM C936 - Standard Specification for Solid Concrete Interlocking Paving Units

M. ASTM C990 - Standard Specification for Joints for Concrete Pipe, Manholes and Precast Box Sections Using Preformed Flexible Joint Sealants

N. ASTM C1227 - Standard Specification for Precast Concrete Septic Tanks

O. ASTM 1433 - Standard Specification for Precast Reinforced Concrete Box Sections for Culverts, Storm Drains, and Sewers

P. ASTM C1478 - Standard Specification for Storm Drain Resilient Connectors Between Reinforced Concrete Storm Sewer Structures, Pipes and Laterals

Q. AWS D1.1 - Structural Welding Code - Structural Steel

R. AWS D1.4 - Structural Welding Code - Reinforcing Steel

S. CRSI Manual of Standard Practice

1.3 SUBMITTALS

A. Product Data

1. For standard precast concrete units, the precast concrete producer will supply cut sheets showing conformance to project drawings and requirements and to applicable ASTM specifications listed in this specification. The Precast concrete producer shall certify that such products will meet the ASTM specifications.
2. For proprietary precast concrete units, the precast concrete producer may supply standard plans or informative literature. Supporting calculations and design details shall be available upon request. The Precast concrete producer shall warrant that such products will perform the intended task.

B. Shop Drawings

1. The plans for custom-made precast concrete units shall be shop drawings furnished by the precast concrete producer for approval by the Owner or his agent (specifier). These drawings shall show complete design, installation, and construction information in such detail as to enable the Owner to determine the adequacy of the proposed units for the intended purpose. Details of steel reinforcement size and placement as well as supporting design calculations, if appropriate, shall be included. The drawings shall include a schedule, which will list the size and type of precast concrete units at each location where they are to be used. The precast concrete units shall be produced in accordance with the approved drawings.

1.4 QUALITY ASSURANCE

A. Precast concrete producer shall demonstrate adherence to the standards set forth in the National Precast Concrete Association Quality Control Manual. Precast concrete producer shall meet requirements written in subparagraph 1 or 2.

1. NPCA Certification - The precast concrete producer shall be certified by the National Precast Concrete Association's Plant Certification Program prior to and during production of the products for this project.

2. Qualifications, Testing and Inspection

a. The Precast concrete producer shall have been in the business of producing precast concrete products similar to those specified for a minimum of 5 years. The precast concrete producer shall maintain a permanent quality control department or retain an independent testing agency on a continuing basis. The agency shall issue a report, certified by a licensed engineer, detailing the ability of the precast concrete producer to produce quality products consistent with industry standards.

b. The Precast concrete producer shall show that the following tests are performed in accordance with the ASTM standards indicated. Tests shall be performed for each 150 cu. yd. of concrete placed, but not less frequently than once per week.

1. Slump: C143
2. Compressive Strength: C31, C192, C39
3. Air Content (when air-entrained concrete is being used): C231 or C173
4. Unit Weight: C138

c. The Precast concrete producer shall provide documentation demonstrating compliance with this subparagraph.

d. The Owner may place an inspector in the plant when the products covered by this specification are being manufactured.

1.5 DELIVERY, STORAGE AND HANDLING

A. Handling

1. Products shall be stored, handled shipped and unloaded in a manner to minimize damage. Lifting holes or inserts shall be consistent with industry standards. Lifting shall be accomplished with methods or devices intended for this purpose.

B. Acceptance at Site

1. The Owner's representative shall make final inspection and acceptance of the precast concrete products upon arrival at the jobsite.

PART 2.B - PRODUCTS

2.1 MANUFACTURERS

A. The precast concrete manufacturer must meet the guidelines written in article 1.5 paragraph A.

2.2 MANUFACTURED PRECAST UNITS

A. Precast Concrete: Provide all units shown in Contract Documents and as needed for a complete and proper installation

B. Design Criteria - Design units in accordance with:

1. Massachusetts 8th Edition of the building code.
2. ACI 304 and 318.
3. CRSI Manual of Standard Practice.
4. Applicable ASTM Standard(s).

C. Finishes

1. Formed non-architectural surfaces: Surfaces cast against approved forms using industry practice in cleaning forms, designing concrete mixes, placing and curing concrete. Normal color variations, form joint marks, small surface holes caused by air bubbles, and minor chips and spalls will be tolerated but no major imperfections, honeycombs or other defects will be permitted.
2. Unformed surfaces: Surfaces finished with a vibrating screed, or by hand with a float. Normal color variations, minor indentations, minor chips and spalls will be tolerated but no major imperfections, honeycombs, or other defects shall be permitted.
3. Special finishes:

a. Troweled, broom or other finishes shall be according to the requirements of project documents and performed per industry standards or supplier specifications.
b. Precast concrete producers shall submit finishes for approval when required by the project documents. The sample finishes shall be approved prior to the start of production.

D. Patching and Repairs

1. No repair is required to formed surfaces that are relatively free of air voids and honeycombed areas, unless the surfaces are required by the design to be finished.
2. Repairing Minor Defects - Defects that will not impair the functional use or expected life of a manufactured precast concrete product may be repaired by any method that does not impair the product.
3. Repairing Honeycombed Areas - When honeycombed areas are to be repaired, all loose material shall be removed and the areas cut back into essentially horizontal or vertical planes to a depth at which coarse aggregate particles break under chipping rather than being dislodged. Proprietary repair materials shall be used in accordance with the

manufacturer's instructions. If a proprietary repair material is not used, the area shall be saturated with water and, immediately prior to repair, the area should be damp, but free of excess water. A cement-sand grout or an approved bonding agent shall be applied to the chipped surfaces, followed immediately by consolidating an appropriate repair material into the cavity.

4. Repairing Major Defects - Defects in precast concrete products which impair the functional use or the expected life of products shall be evaluated by qualified personnel to determine if repairs are feasible and, if so, to establish the repair procedure.

2.3 MATERIALS

A. Concrete - Concrete shall be a uniform mix of quality materials listed below. Mix proportions shall be determined by following the standards in ACI 318 Chapter 5. Recommendations for selecting proportions for concrete are given in detail in Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete (ACI 211.1). Recommendations for lightweight concrete are given in Standard Practice for Selecting proportions for Structural Lightweight Concrete (ACI 211.2).

1. Design mix shall be 4000 psi concrete with ¾ aggregate as specified below.
   Concrete Mix Design for 4000 3/4 Standard Mix
   611 lb Cement Type II
   1242 lb Sand
   1300 lb 3/4 Stone
   500 lb 3/8 Stone
   31.0 gal Water
   1.5 oz MBVR-C
   30.6 oz Glenium 3030NS
   0.42 w/c Ratio
   Slump 3" - 4"
   Air Content 6% +/- 1.5%

2. Water-Cement Ratio

   a. Concrete that will be exposed to freezing and thawing shall contain entrained air and shall have water cement ratios of 0.45 or less. Concrete which will not be exposed to freezing, but which is required to be watertight, shall have a water-cement ratio of 0.48 or less if the concrete is exposed to fresh water, or 0.45 or less if exposed to brackish water or sea water. For corrosion protection, reinforced concrete exposed to deicer salts, brackish water or seawater shall have a water-cement ratio of 0.40 or less.

3. Air Content

   a. The air content of concrete that will be exposed to freezing conditions shall be as specified in Part 2.3.A.1.

4. Compressive Strength

   a. All concrete shall develop a minimum compressive strength of 4,000 psi in 28 days unless other strengths are designated on the drawings.

B. Portland Cement: ASTM C150, Type II

C. Aggregates: ASTM C33 or C330.

D. Water: Potable or free of deleterious substances in amounts harmful to concrete or embedded metals.

E. Admixtures:

1. Air-entraining: ASTM C260
2. Water reducing, retarding, accelerating, high range water reducing: ASTM C494
3. Pozzolans, fly ash and other mineral admixtures: ASTM C618
4. Ground granulated blast furnace slag: ASTM C989
5. Pigments: Non-fading and lime-resistant

2.4 REINFORCEMENT AND CONNECTION MATERIALS

A. Provide all reinforcement, accessory and connection materials required. Concrete reinforcement shall be steel bars or welded wire fabric, or a combination thereof.

B. Reinforcing Bars:

1. Deformed Billet-steel: ASTM A615
2. Deformed Rail-steel: ASTM A616
3. Deformed Axle-steel: ASTM A617
4. Deformed Low-alloy steel: ASTM A706

C. Reinforcing Wire:

1. Plain Wire: ASTM A82
2. Deformed Wire: ASTM A496

D. Welded Wire Fabric:

1. Plain Wire: ASTM A185
2. Deformed Wire: ASTM A497

E. Epoxy Coated Reinforcement:

1. Reinforcing Bars: ASTM A775
2. Wires and Fabric: ASTM A884

F. Galvanized Reinforcement:

1. Reinforcing Bars: ASTM A767

G. Inserts and Embedded Metal - All items embedded in concrete shall be of the type required for the intended task, and meet the following standards:

1. Structural steel plates, angles, etc: ASTM A36
2. Proprietary items: In accordance with manufacturers published literature
3. Welded studs: AWS D1.1
4. Finishes (as required):

   a. Shop primer: Manufacturers' standards
   b. Hot-dipped galvanized: ASTM A152
   c. Zinc-rich coating: MIL-P-2135 self-curing, one component, sacrificial
   d. Cadmium coating: Manufacturers' recommendations

H. Grout:

1. Cement grout: Portland cement with enough water for the required strength and sand for proper consistency. May contain mineral or chemical admixtures, if approved by Owner's representative.
2. Non-shrink grout: Premixed, packaged expansive and non-expansive shrink- resistant grout.

2.5 FABRICATION

A. Forms for manufacturing precast concrete products shall be of the type and design consistent with industry standards. They should be capable of consistently providing uniform products and dimensions. Forms shall be constructed so that the forces and vibrations to which the forms will be subjected can cause no product damage.

1. Forms shall be cleaned of concrete build-up after each use.
2. Form release agents shall not be allowed to build up on the form casting surfaces.

B. Reinforcement

1. Cages of reinforcement shall be fabricated either by tying the bars, wires or welded wire fabric into rigid assemblies or by welding where permissible in accordance with AWS D1.4. Reinforcing shall be positioned as specified by the design and so that the concrete cover conforms to requirements. The tolerance on concrete cover shall be one-third of that specified but not more than 1/2 in. Concrete cover shall not be less than 1/2 in. Positive means shall be taken to assure that the reinforcement does not move significantly during the casting operations.

C. Embedded Items

1. Embedded items shall be positioned at locations specified in the design documents. Inserts, plates, weldments, lifting devices and other items to be imbedded in precast concrete products shall be held rigidly in place so that they do not move significantly during casting operations.

D. Placing Concrete

1. Concrete shall be deposited into forms as near to its final location as practical. The free fall of the concrete shall be kept to a minimum. Concrete shall be consolidated in such a manner that segregation of the concrete is minimized and honeycombed areas are kept to a minimum. Vibrators used to consolidate concrete shall have frequencies and amplitudes sufficient to produce well consolidated concrete.
2. Cold Weather Requirements - Recommendations for cold weather concreting are given in detail in Cold Weather Concreting reported by ACI Committee 306.

    a. Adequate equipment shall be provided for heating concrete materials and protecting concrete during freezing or near-freezing weather.
    b. All concrete materials and all reinforcement, forms, fillers, and ground with which concrete is to come in contact shall be free from frost.
    c. Frozen materials or materials containing ice shall not be used.
    d. In cold weather the temperature of concrete at the time of placing shall not be below 45/ F. Concrete that freezes before its compressive strength reaches 500 psi shall be discarded.

3. Hot Weather Requirements - Recommendations for hot weather concreting are given in detail in Hot Weather Concreting reported by ACI Committee 305.

    a. During hot weather, proper attention shall be given to ingredients, production methods, handling, placing, protection, and curing to prevent excessive concrete temperatures or water evaporation that could impair required strength or serviceability of the member or structure. The temperature of concrete at the time of placing shall not exceed 90/ F.

E. Curing

1. Curing by Moisture Retention - Moisture shall be prevented from evaporating from exposed surfaces until adequate strength for stripping (Article 2.6, paragraph F) is reached by one of the following methods:

    a. Cover with polyethylene sheets a minimum of 6 mils thick.
    b. Cover with burlap or other absorptive material and keep continually moist.
    c. Use of a membrane-curing compound applied at a rate not to exceed 200 sq. ft. per gallon, or per manufacturers' recommendations.

2. Surfaces that will be exposed to weather during service shall be cured as above a minimum of 3 days. Forms shall be considered effective in preventing evaporation from the contact surfaces. If air temperature is below 50°F the curing period shall be extended.

3. Curing with Heat and Moisture

    a. Concrete shall not be subjected to steam or hot air until after the concrete has attained its initial set. Steam, if used, shall be applied within a suitable enclosure, which permits free circulation of the steam. If hot air is used for curing, precautions shall be taken to prevent moisture loss from the concrete. The temperature of the concrete shall not be permitted to exceed 160/ F. These requirements do not apply to products cured with steam under pressure in an autoclave.

F. Stripping Products from Forms

1. Products shall not be removed from the forms until the concrete reaches the compressive strength for stripping required by the design. If no such requirement exists, products may be removed from the forms after the final set of concrete provided that stripping damage is minimal.

G. Shipping Products

1. Products shall not be shipped until they are at least 5 days old, unless it can be shown that the concrete strength has reached at least 75% of the specified 28-day strength, or that damage will not be caused which will impair the performance of the product.

2.6 SOURCE QUALITY CONTROL

A. Fabricate units in accordance with ACI 318 and the National Precast Concrete Association's Quality Control Manual for Precast Plants.

PART 3.B - EXECUTION

3.1 INSTALLATION

A. Site Access

1. Contractor shall be responsible for providing adequate access to the site to facilitate hauling, storage and proper handling of the precast concrete products.

B. Installation

1. Precast concrete products shall be installed to the lines and grades shown in the contract documents or otherwise specified.
2. Products shall be lifted by suitable lifting devices at points provided by the precast concrete producer.
3. Products shall be installed per the precast concrete producer's recommendation.

END OF SECTION