SPECIFICATIONS

QUINCY, MASSACHUSETTS

DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

BREWER'S CORNER AND VICINITY PEDESTRIAN ACCESS & TRAFFIC MANAGEMENT IMPROVEMENT PROJECT
EECBG Award No. DE-SC0003078
CDBG Award No. B-10-MC-25-0021

BID SET NO._____

December 2010

THE HONORABLE THOMAS P. KOCH
MAYOR

Dennis E. Harrington, Planning Director
Kathryn R. Hobin, Purchasing Agent

WOODARD & CURRAN

ENGINEERING:SCIENCE:OPERATIONS

DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT
QUINCY, MASSACHUSETTS

BREWER'S CORNER AND VICINITY PEDESTRIAN ACCESS & TRAFFIC MANAGEMENT IMPROVEMENT PROJECT

WOODARD &CURRAN

980 Washington Street, Suite 325
Dedham, MA 02026-6797
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223580.00

QUINCY, MASSACHUSETTS
DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

BREWER'S CORNER AND VICINITY PEDESTRIAN ACCESS
& TRAFFIC MANAGEMENT IMPROVEMENT PROJECT

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CITY OF QUINCY, MASSACHUSETTS
Department of Public Works

Thomas P. Koch
Mayor

Dennis E. Harrington
Planning Director

INVITATION TO BID

On behalf of the City of Quincy and Department of Planning and Community Development (PCD), the Procurement Department, as the Bidding Authority, will receive sealed bids for the "Brewer's Corner and Vicinity Pedestrian Access and Traffic Control Improvements project," EECBG Grant Agreement Award No. DE-SC0003078, CDBG Agreement Award No. B-10-MC-25-0021, at the Procurement Department, 2nd Floor, City Hall, 1305 Hancock Street Quincy, Massachusetts 02169 **until 11:00 AM prevailing local time on January 19, 2011** at which time and place all bids will be publicly opened and read aloud. Bids shall be properly sealed and clearly marked: "Bid for Brewer's Corner and Vicinity Pedestrian Access and Traffic Control Improvements project" and addressed to the Chief Procurement Officer. The City of Quincy is the Awarding Authority.

The Project consists of intersection reconstruction; handicap accessibility improvements; new fully-actuated LED traffic signal(s) and associated equipment; Roadway resurfacing and repaving; sidewalk and curb reconstruction; street lighting; and traffic calming.

Electronic Versions of the Contract Documents are available on the City's Web Site as of December 22, 2010 at no cost. A **non-refundable printing cost of $50.00** in cash or check payable to the City of Quincy shall be required for each hard copy set of Contract Documents. Bidders requesting hard copy Contract Documents by mail may call with their "Federal Express" or "UPS" account number. The contract documents may be obtained during the business hours of 8:30 a.m. to 4:30 p.m. Mondays thru Thursdays and 8:30 a.m. to 3:00 on Fridays at the office of the Purchasing Agent, Quincy City Hall, 1305 Hancock St. Quincy, MA 02169. Contract Documents will be available on-line and in the Purchasing Department starting on December 22, 2010**.**

Each bid shall be accompanied by a bid security in the amount of five percent (5%) of the total value of the bid in the form of a bid bond or certified/treasurer's check.

The Work under the Contract is funded in part by a combination City of Quincy funds, Energy Efficiency and conservation Block Grant (EECBG) funds and Community Development Block Grant (CDBG) funds. The work under this contract shall meet the requirements of all EECBG and CDBG provisions.

Minority Business Enterprise (MBE) and Women's Business Enterprise (WBE) policies of the Commonwealth of Massachusetts and the City of Quincy are applicable to the total dollars paid to the construction contract. The "Fair Share" goal for this project is a minimum of ten percent (10%) MBE participation and five percent (5%) WBE participation by state-certified MBEs and WBEs. The bidder shall submit completed MBE/WBE forms (EEO-DEP-190 & EEO-DEP-191) and Vendor Information Forms (VIF) with the bid. Failure to comply with the requirements of this paragraph may be deemed to render a proposal non-responsive. No waiver of any provision of this section will be granted unless approved by the Department of Energy or Housing & Urban Development.

Minimum Wage Rates as determined by the Commissioner of Department of Workforce Development under the provision of the Massachusetts General Laws, Chapter 149, Sections 26 to 27D, as amended, and the Federal Davis Bacon Act apply to this project. If the State and Federal Wage Rates Conflict, the higher wage rate shall be

used. It is the responsibility of the contractor, before bid opening, to request if necessary, any additional information on Minimum Wage Rates for those trades people who may be employed for the proposed work under this contract.

The bidding and award of this contract shall be in full compliance with Massachusetts General Laws, Chapter 30, Section 39M, as last revised. All Federal, State and City of Quincy regulations in relation to Equal Employment Opportunity, OSHA, Employment of Quincy Residents and subject to the minimum wage rates set under the Massachusetts Prevailing Wage Law Chapter 149, §26 and the Federal Davis-Bacon Act. The City reserves the right to waive any informality in or to reject any or all bids when such an action is deemed in the best interests of the City.

Non-responsive and/or unbalanced bids may be rejected.

Thomas P.Koch
Mayor

Dennis E. Harrington
Planning Director

Advertise		**Req. No.**
The Patriot Ledger	December 22, 2010	
The Quincy Sun	December 23, 2010	
The Central Register	December 15, 2010	

1305 Hancock St., Quincy MA 02169
Telephone: (617) 376-1060 Fax: (617) 376-1074
Printed on Recycled Paper

INFORMATION FOR BIDDERS

1. RECEIPT OF BIDS

On behalf of the City of Quincy, the Procurement Department as the Bidding Authority, will receive sealed Bids for the Brewer's Corner and Vicinity Pedestrian Access & Traffic Management Improvement Project, EECBG Grant Agreement Award No. DE-SC0003078, CDBG Agreement Award No. B-10-MC-25-0021**,** at the Procurement Department, 2nd Floor, City Hall, 1305 Hancock Street Quincy, Massachusetts 02169 in accordance with the Invitation to Bid. Bids shall be properly sealed and clearly marked: Bid for Brewer's Corner and Vicinity Pedestrian Access & Traffic Management Improvement Project, and addressed to the Chief Procurement Officer. The City of Quincy is the Awarding Authority.

2. PROJECT DESCRIPTION:

The work to be done under this Contract consists of furnishing all necessary labor, materials and equipment required for the installation of an traffic control signal at the intersection Granite Street, Copeland Street, Water Street and Garfield Street (commonly referred to as Brewer's Corner) in Quincy, MA. The project will include other improvements in accordance with the Plans and these Special Provisions.

Included in the work are unclassified excavation, drainage modifications/adjustments, installation of sidewalks and handicap ramps, installation of vertical granite curb, traffic signs and pavement markings, installation of a new closed-loop traffic signal system, traffic control management during construction, and other street improvements in accordance with the Plans and these Technical Specifications.

The project also includes significant amount of Contractor project management responsibilities including record keeping, grant administration, progress tracking, and communication with the City. Bidders should make specific review of these DOE and HUD provisions.

All work done under this Contract shall be in conformance with the Massachusetts Department of Transportation - Highway Division's (Formally Massachusetts Highway Department) STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES dated 1988, the SUPPLEMENTAL SPECIFICATIONS dated February 25, 2010, the STANDARD SPECIAL PROVISIONS dated August 27, 2010, the 2003 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, the 2010 CONSTRUCTION STANDARD DETAILS, the 1990 STANDARD DRAWING FOR SIGNS AND SUPPORTS, the 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, THE AMERICAN STANDARD NURSERY STOCK (ANSI Z60.1-1986) the PLANS and these TECHNICAL SPECIFICATIONS.

In addition, work shall conform to the City of Quincy Standards. In case of discrepancy between Massachusetts Department of Transportation - Highway Division (MassDOT) Standard Specifications and the City of Quincy Standards, the latter will govern. In instances where the Standard Specifications make references to the Massachusetts Highway Department (MassDOT or MassDOT), those references shall be replaced with "City of Quincy".

3. PROJECT SCHEDULE:

Construction of the project shall occur in two phases. BIDDERS shall make all appropriate accommodations to include the impact of this bifurcated project schedule into their Bid Prices. The scope of work and schedule for each phase shall be as outlined below;

Phase 1

Schedule: Shall commence no later than May 1, 2011. Phase 1 shall be completed by August 1, 2011.

Scope of Work:

- Mobilization and Demobilization necessary for the execution of Phase 1.
- Procurement and furnishing of all LED traffic signal equipment (including loop detectors).
- Installation of all traffic signals and control equipment, except for loop detectors. The Contractor shall set the traffic signals in the timer mode, with timing sequence as noted on the Plans.
- All drainage system improvements.
- All sanitary system improvements.
- Geometric improvements at the Water Street/Copeland Street/Granit Street/Garfield Street and the at the Garfield Street/Arthur Street/Smith Street/Prout Street intersections.
- Construction of all sidewalk improvements including installation of structural soil mix within the treeways.
- Installation of signage.
- Construction of all Handicap Accessibility improvements.
- Providing temporary pavement markings as necessary for the proper flow and safety of traffic during Phase 1 and between Phase 1 and Phase 2.
- Providing temporary crosswalks markings.
- All temporary traffic controls and police details necessary for execution of Phase 1.

Phase 2:

Schedule: Shall commence no later than April 1, 2012. Phase 2 shall be substantially completed by June 1, 2012 and have achieved final completion by July 1, 2012.

Scope of Work:

- Mobilization and Demobilization necessary for the execution of Phase 2.
- Milling of existing asphalt.
- Installation of loop detectors.
- Adjustment to grade of all castings.
- Pavement resurfacing.
- Permanent pavement markings.
- Installation of inlaid crosswalks.
- Installation of treeways (geotextile fabric, sand bedding, edging, porous pavers, trees and mulch).
- Installation of site amenities (planters, benches, trash receptacles).
- All temporary traffic controls and police details necessary for execution of Phase 2.

4. CONTRACT DOCUMENTS:

The Contract Documents have been prepared by Woodard & Curran Inc., Consulting Engineers, 980 Washington Street, Suite 325 Dedham, MA 02026 telephone no. (781) 251-0200, and the Department of Planning and Community Development. Specifications will be available as described in the Invitation to Bid.

All questions regarding this Bid should be directed to Kathryn R. Hobin, Purchasing Agent through fax: 617-376-1074 and email: khobin@quincyma.gov and cc to ktrillcott@quincyma.gov Questions will be accepted until January 13, 2011 at 4:00 p.m.

The Purchasing Department is requesting that if you have printed out a copy of this bid, please send a confirming email, so that we may be able to keep track of a plan holders list to send out addenda notices via email addresses.

Written clarifications or interpretations will be issued through Addenda. No addenda, except via FAX transmission or overnight delivery, will be issued any later than five (5) calendar days before the Bid due date. Only questions answered by formal written Addenda will be binding. Oral and other clarifications or interpretations will be without legal effect. Addenda will be mailed via UPS or certified mail, with return receipt requested, to all parties recorded to have received the Contract Documents.

Each Bidder shall be responsible for determining that all Addenda issued have been received and incorporated into the Bid response. ***If you have received this bid from either the City of Quincy Website or through an email it is your responsibility to check for addenda (at www.quincyma.gov) before you turn in your proposal. The City of Quincy will not be responsible any bids received omitting addenda acknowledgement.***

The City reserves the right to delete all or any portion of the work or add new work or to decrease or increase the scope of any item of the work to be done under this Contract either prior to executing the Contract or at any time during the life of the Contract. Exercise by the City of the above rights shall not constitute any grounds or basis of claims for damages or for a loss of anticipated profits.

Also, an increase or a decrease of quantity for any estimated item (regardless of its magnitude) shall not be regarded as a grounds or basis for any increase or decrease in the Contract unit prices, nor in the time allowed for the completion of the work except as provided for in the Contract.

5. BID SECURITY:

All Bids shall be accompanied by a Bid Security in the form of a Bid Bond issued by a company qualified to do business in the Commonwealth of Massachusetts or a certified check drawn upon a national or state bank and payable to the City of Quincy. The amount of the certified check or Bid Bond shall be five percent (5%) of the amount Bid.

6. APPLICABLE LAW:

The bidding and award of this contract shall be in full compliance with Massachusetts General Laws, Chapter 30, Section 39M, as last revised. All Federal, State and City of Quincy regulations in relation to Equal Employment Opportunity, OSHA, Employment of Quincy Residents and subject to the minimum wage rates set under the Federal Wage Rate Laws and Massachusetts Prevailing Wage Law Chapter 149, §26 and David Bacon Act both apply. The City reserves the right to waive any informality in or to reject any or all bids when such an action is deemed in the best interests of the City.

7. PERFORMANCE AND PAYMENT BONDS:

All Bidders are advised that this Contract will require Performance and Payment Bonds. Each Bond shall be for 100% of the amount Bid and must be furnished at the time of Contract Award.

8. WITHDRAWAL OF BID

No Bid may be withdrawn for at least sixty (60) calendar days after receipt of Bids unless released by the City.

9. PRE BID CONFERENCE:

A pre-bid conference will not be held for this project.

10. WAGE RATES

All Federal Wage Rate Laws and Minimum Wage Rates as determined by the Commissioner of Department of Workforce Development under the provision of the Massachusetts General Laws, Chapter

149, Sections 26 to 27D, as amended, apply to this project. It is the responsibility of the Contractor, before bid opening, to request if necessary, any additional information on Minimum Wage Rates for those trades people who may be employed for the proposed work under this contract.

11. MBE-WBE REQUIREMENTS:

Minority Business Enterprise (MBE) and Women's Business Enterprise (WBE) policies of the Commonwealth of Massachusetts and the City of Quincy are applicable to the total dollars paid to the construction contract. The "Fair Share" construction goal for this project is a minimum of ten percent (10%) MBE participation and five percent (5%) WBE participation by state-certified MBEs and WBEs. The bidder shall submit completed MBE/WBE forms (EEO-DEP-190 & EEO-DEP-191) and Vendor Information Forms (VIF) with the bid. Failure to comply with the requirements of this paragraph may be deemed to render a Bid non-responsive. No waiver of any provision of this section will be granted unless approved by the Department of Energy Protection and Housing & Urban Development."

12. AWARD OF CONTRACT:

The Bidding Authority reserves the right to waive any informality in or to reject any and all Bids if it deems it to be in the public interest to do so.

13. PERMITS:

All fees for permits or licenses required for this Contract by the City or any other agency shall be an expense of the Contractor and shall not be waived.

14. FUNDING OF PROJECT:

The Work under the Contract is funded as stipulated in the Invitation to Bid.

15. DIESEL RETROFIT PROGRAM:

The work under this Contract shall meet the requirements of the Massachusetts Diesel Retrofit Program by use of after-engine emission controls that are EPA certified, or their equivalent, on 100% of the off-road (non-registered) diesel vehicles/equipment used at the job site.

16. SALES TAX

The materials and supplies to be used in the Work shall be exempt for all applicable federal, state and local sales tax.

Kathryn R. Hobin
Purchasing Agent
City of Quincy

INSTRUCTIONS TO BIDDERS

1. RECEIPT OF BIDS:

   Bids will be received as described in the Invitation for Bids.

2. PROJECT DESCRIPTION:

   The Work covered by this contract is as summarized in the Invitation for Bids.

3. PROVISION OF LED TRAFFIC SIGNAL MODULES
:

   Provision of the LED Traffic Signal Modules at the Water Street/Copeland Street/Granite Street/Smith Street intersection is being funded by the American Recovery and Reinvestment Act (Recovery Act) of 2009, Public Law 111-5. In a grant effective November 4, 2009, the City of Quincy through the Department of Planning and Community Development was awarded an Energy Efficiency Conservation Block Grant (EECBG) funded by the United States Department of Energy, *Assistance Agreement Award No DE-SC0003078*.

   Pursuant to the U.S. Department of Energy Financial Assistance- Funding Opportunity Announcement *#DE-FOA-000001* dated April 24, 2009, and in keeping with the agenda of the Recovery Act, and supporting the goal of immediate investment in the economy, entities are required to obligate funds for all approved activities within eighteen (18) months from the effective date of the award.

   Obligation of funds is defined as those funds for which binding commitments have been made; e.g., funds encumbered and represented as an un-liquidated contract.

   Pursuant to the above requirements, **by Tuesday, March 1, 2011,** the General Contractor shall submit written verification in the form of an executed subcontract, purchase order, or other commitment document that subcontractor / vendor is under contract to provide the LED Traffic Signal Modules Signal.

4. BID FORM:

   A. Each Bid shall be submitted on the Form for General Bid included with the Contract Documents. The Form for General Bid may be removed and submitted separately so long as all required forms and attachments are included. All blank spaces for Bid prices must be filled in with the unit price for the item or the lump sum price for which the Bid is made.

   B. Bidders must submit the following documents and supplemental information, with original signatures, including but not limited to:

Form for General Bid B-1
Bid Price Form – Unit Price Items & Labor Services B-5
Schedule of Participation B-14
Letter of Intent for Minority Business Enterprise B-15
Letter of Intent for Woman Business Enterprise B-16
Bidders Certification of Compliance with MBE & WBE Enterprise Requirements B-17
Vendor Information Form B-18
Certificate as to Corporate Bidder B-20
Tax Compliance Certificate B-21

Non-Collusion Affidavit of Bidder B-23
Contractor's Certification B-24
OSHA Certification B-25
Certification of Bidder Regarding Equal Employment Opportunity B-26
Right-To-Know Law: Certification B-27
Certification of Non-Segregated Facilities B-28
Affidavit Regarding Prior Labor Disputes B-29
Statement of Internal Accounting Controls B-30
Certification of Internal Accounting B-31
Massachusetts Diesel Retrofit Program B-32
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Anti-Lobbying Certification for ARRA B-37
Acknowledgement of Bidders Provision of LED Traffic Signal Modules B-38
Certification Concerning Responsible Employer Ordinance B-39
Relevant Previous Experience Form-General Contractor B-40
Relevant Previous Experience Form-Traffic Signal Subcontractor B-41
Relevant Previous Experience Form-Inlaid Thermoplastic Asphalt .....
Pavement Marking Subcontractor B-42

C. Forms for General Bid shall be completed in ink or by typewriter. The Bid price for each item on the form shall be stated in words, and figures, as provided. Discrepancies between unit prices and their respective total amounts will be resolved in favor of the unit prices. Discrepancies between words and figures will be resolved in favor of words. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

D. A Bid which includes for any item a Bid Price that is abnormally low or high may be rejected as unbalanced.

E. Bids by corporations shall be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.

F. Bids by partnerships shall be executed in the partnership name and signed by a partner, whose title shall appear under the signature. The official address of the partnership shall be shown below the signature.

G. All names shall be typed or printed below the signature.

H. The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which shall be filled in on the Bid Form).

I. The address to which communications regarding the Bid are to be directed shall be shown.

J. One copy of each Bid shall be submitted in a sealed envelope plainly marked on the outside with the name of the Bidder, Bidder's address, and the name of the project for which the Bid is submitted.

K. If forwarded by mail, the sealed envelope containing the Bid must be enclosed in another envelope addressed to the Owner.

5. EXAMINATION OF CONTRACT DOCUMENTS AND SITE:

A. It is the responsibility of each Bidder before submitting a Bid, to (a) examine the Contract Documents thoroughly, (b) visit the City to become familiar with local conditions that may affect cost, progress, performance or furnishing of the Work, (c) consider federal, state and local Laws and Regulations that may affect cost, progress, performance or furnishing of the Work, (d) study and carefully correlate Bidder's observations with the Contract Documents, and (e) notify Engineer of all conflicts, errors or discrepancies in the Contract Documents.

B. Before submitting a Bid, each Bidder may, at Bidder's own expense, make such additional examinations and tests which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price and other terms and conditions of the Contract Documents.

C. The lands upon which the Work is to be performed consist of public properties in the City of Quincy. Bidders have the legal right to access the space as identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by Contractor.

D. The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this paragraph that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents and such means, methods, techniques, sequences or procedures of construction as may be indicated in or required by the Contract Documents, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the work.

E. All information given in the Drawings and the other Contract Documents relating to the sub-surface and other conditions, natural phenomena, existing utilities, pipelines, other structures, etc, is from the best source s available to the City. All such information is furnished only for the information and convenience of the Bidders and is not guaranteed.

6. INTERPRETATIONS:

A. All questions about the meaning or intent of the Contract Documents shall be submitted to the City in accordance with INFORMATION FOR BIDDERS.

7. BID RESULTS:

Bid results will be processed by the City Procurement Department and posted once the Bid Reviews and Recommendation for Award have been completed.

8. CONTRACT TIME:

The by which, the Work is to be substantially completed and also completed and ready for final payment are set forth in the Bid Form and the Agreement.

9. LIQUIDATED DAMAGES:

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

10. POSTPONEMENT OF DATE FOR PRESENTING AND OPENING BIDS:

The Owner reserves the right to postpone the date for presentation and opening of Bids and will give notice of such postponement to each prospective Bidder.

11. MODIFICATION AND WITHDRAWAL OF BIDS:

A. Bids may be modified or withdrawn only by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.

B. No Bidder may withdraw or modify their bid for a period of sixty (60) days, Saturdays, Sundays, and legal holidays excluded, after the actual date of the opening of the Bids.

12. PRICES:

A. In the event of discrepancies between the price totals quoted in the Bid and the unit price figures, the unit price figures shall control. The price is to include the furnishing of all material, plant, equipment, tools, labor, and other facilities required for the completion of the Work except as may be otherwise expressly provided in the Contract Documents. After the award of the Contract, if the Contractor desires to use equipment or methods other than those specified or shown on the Drawings, the Contractor shall submit data to prove equality, submit reason for change, submit the amount of credit (if any) to the Contract Price, and provide engineering for any changes required to arrive at a decision as to the suitability of the substitution.

B. A bid which includes, for any item, a bid price that is abnormally high or low, may be rejected as an unbalanced bid.

C. The quantities in the Bid Form are being set forth as a basis for the comparison of bids only and the actual amount of work may not correspond therewith.

D. The City reserves the right to delete all or any portion of the work or add new work or to decrease or increase the scope of any item of the work to be done under this Contract either prior to executing the Contract or at any time during the life of the Contract. Exercise by the City of the above rights shall not constitute any grounds or basis of claims for damages or for a loss of anticipated profits.

E. Also, an increase or a decrease of quantity for any bid item (regardless of its magnitude) shall not be regarded as a grounds or basis for any increase or decrease in the Contract unit prices, nor in the time allowed for the completion of the work except as provided for in the Contract.

F. The materials and supplies to be used in the Work shall be exempt from all applicable Federal, State and local sales taxes.

13. ACCEPTANCE OR REJECTION OF BIDS:

A. The Owner reserves the right to reject any or all Bids, or to accept any Bid which it deems to be in its best interest. Any Bid which is incomplete, obscure, or irregular may be rejected; any Bid having erasures or corrections in the price sheet may be rejected; any Bid which omits a price on

any one or more items may be rejected; and any Bid accompanied by an insufficient or irregular Bid Deposit may be rejected.

B. If the Bidder submits a Bid before the deadline time for submission, the Bidder may, in writing, modify his/her original Bid for submission. No oral, telephone, or telegraphic modifications will be considered.

14. AWARD OF CONTRACT:

A. The Owner reserves the right, prior to award of the contract, to delete any portion of the work as its interests may appear, and to adjust the quantities of work at any time. The Owner reserves the right to reject any or all Bids and to waive any irregularities in bidding. The successful Bidder will be required to furnish the necessary Bonds and Insurance certificates.

15. BIDDER'S QUALIFICATIONS:

A. It is the intention of the Owner not to award this Contract to any Bidder who does not furnish evidence satisfactory to the Owner that he/she has the ability, skill, integrity and experience in this class of work and that he/she has sufficient capital and plant to enable him/her to prosecute the same successfully and to complete it within the specified time.

B. In determining the skill, ability, and integrity of the responsible and eligible Bidders the following elements will be considered: whether the Bidder has (a) previously defaulted on, failed to perform properly, or failed to complete on time contracts of similar nature; (b) habitually and without just cause neglected payment for material or to employees; (c) a permanent place of business; (d) adequate plant and equipment to do the Work properly; (e) a suitable financial status to meet the obligations incident to the Work; (f) appropriate technical experience; (g) labor force that can work in harmony with all other elements of labor employed and (h) adequate and demonstrated Project Management capabilities to execute the reporting requirements in these specifications.

16. LOW BIDDER AND ACCEPTANCE OF THE BID:

A. Except where the Owner exercises its right to reject any or all Bids, the Contract will be awarded to the lowest responsible and eligible Bidder.

B. Within thirty (30) days after opening the Bids the Owner intends to prepare a Notice of Award signed by a duly authorized representative of the Owner. This Notice of Award shall bind the successful Bidder to execute the Contract.

C. The rights and obligations provided for in the Contract shall become effective and binding upon the Parties only with its formal execution by the Owner.

17. EXECUTION OF CONTRACT AGREEMENT AND DAMAGES FOR A FAILURE TO EXECUTE:

A. Any Bidder whose Bid shall be accepted will be required to execute the Contract Agreement and provide the required Performance Bond, Payment Bond and Insurance Certificates within ten (10) days after notice that the Contract has been awarded to him/her. Failure or neglect to do so shall constitute a breach of the Agreement affected by the acceptance of the Bid.

B. The damages to the Owner for such a breach shall include loss from the interference with his/her construction program and other items. The amount of the Bid Deposit accompanying the Bid of

such Bidder will be retained by the Owner as liquidated damages for such breach. In the event any Bidder whose Bid shall be accepted shall fail or refuse to execute the Contract Agreement hereinbefore provided, the Owner may, at its option, determine that such Bidder has abandoned the Contract and there upon his/her Bid and the acceptance thereof shall be null and void and the Owner will be entitled to liquidated damages as above provided.

18. MANUFACTURER'S EXPERIENCE:

A. Wherever it may be written that an equipment or material manufacturer must have a specified period of experience with the product, equipment which does not meet the specified experience period may be considered if the supplier or manufacturer is willing to provide a bond or cash deposit for the duration of the specified time period which will guarantee replacement of that equipment or material in the event of failure.

19. WAGE RATES:

A. Federal Davis-Bacon Wage Rates and Massachusetts Minimum Wage Rates as determined by the Commissioner of the Department Workforce Development under provision of the Massachusetts General Law, Chapter 149, Sections 26 to 27G, as amended, apply to this project. It is the responsibility of the Contractor, before bid opening, to request if necessary, any additional information on Minimum Wage Rates for those trades people who are not covered by these schedules of wage rates, but who may be employed for the proposed work under this Contract.

B. The Contractor shall provide weekly payroll records to the Owner for its file for the duration of the project for the work being performed under this Contract.

20. SAFETY AND HEALTH REGULATIONS:

A. This project is subject to the Safety and Health Regulations of the U.S. Department of Labor set forth in Title 29 CFR, Part 1926 and to all subsequent amendments and CFR 29, Part 1910, General Industry Safety and Health Regulations Identified as Applicable to Construction. Contractor shall be familiar with the requirements of these regulations.

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

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

D. This project is also subject to the Massachusetts Department of Labor and Industries, Division of Industrial Safety (Ch. 454 CMR 10.00 et seq.) "Rules and Regulations for the Prevention of Accidents in Construction Operations (Industrial Bulletin No. 12)." Contractor shall be familiar with the requirements of these regulations.

21. CONTRACTOR'S RECORDS:

A. The Contractor shall comply with Massachusetts G.L.C. 30, S.39 R as explained below.

B. The Contractor shall retain records for at least six years after final payment.

C. During this 6 year period, the Owner, the Inspector General and the Deputy Commissioner of Planning and Operations shall have the right to inspect these records.

D. The Contractor shall notify the Awarding Authority of any changes in bookkeeping and related matters, with a CPA letter of comment.

E. Prior to the execution of the contract, the Contractor shall file a statement of management and internal accounting controls.

F. The Contractor shall file annually an audited financial statement. The final statement filed shall include the date of final payment.

G. The Contractor shall comply with all DOE and HUD record keeping provisions within the Appendices of these specifications.

22. MINORITY AND AFFIRMATIVE ACTION WORKFORCE REPORTING SYSTEM PROCEDURES:

A. Minority Business Enterprise (MBE) and Women's Business Enterprise (WBE) policies of the Federal Government, the Commonwealth of Massachusetts and the City of Quincy are applicable to this Contract. Failure to comply with the requirements of this paragraph may be deemed to render a proposal non-responsive. No waiver of any provision of this section (see the Invitation to Bid) will be granted.

B. Contractors must submit the Contractor's Quarterly Projected Workforce Table (CAD 85-1) prior to the commencement of work and no later than five (5) working days prior to the start of each new quarter to the Engineer.

C. Contractors must submit the Certificate of Work Start-Up By Minority/Women Business Enterprise (Form EEO-DEP-290) within ten (10) days after work start-up for each minority/women business to the Engineer.

D. Contractors must submit the Contractor's Weekly Workforce Utilization Report (CAD 85) to the Engineer no later than the following Tuesday of each week.

E. Contractors must submit the Quarterly MBE/WBE Activity Report (form EEO-DEP-390) within ten (10) days following the reporting period to the Engineer.

F. The Contracting/Administering Agency's Contract Compliance Officer must prepare the Agency's Quarterly Contract Compliance Report (CAD 75) for Minority Workforce Utilization and MBE/WBE Contract Activities Report and send them to the Engineer no later than the 15th of the month following the end of each quarter.

G. The Contractor is responsible for the submission of all reports from all of his/her Subcontractors.

H. The Contractor shall ensure that, the Vendor Information Form is completed by Subcontractors as applicable.

I. The Owner must submit (within 30 days of submission by the Contractor of the Final Pay Estimate) the MBE/WBE Contract Completion Verification (form EEO-DEP-590) to the Engineer.

23. GOVERNING LAW:

A. Applicable provisions of Massachusetts General Laws and Regulations and/or the United States Code and Code of Federal Regulations govern this Contract and any provision in violation of the foregoing shall be deemed null, void and of no effect. Where conflict between Code of Federal Regulations and State Laws and Regulations exist, the more stringent requirement shall apply.

24. PERMITS:

A. All fees for permits or licenses required for this project by the City, or any other agency, shall be an expense of the Contractor and shall not be waived.

25. DIESEL RETROFIT PROGRAM:

A. This project is subject to the requirements of the Massachusetts Diesel Retrofit Program (MDRP). Bidders must submit a signed and dated statement of Intent to Comply form as part of their bid proposal documents.

26. GUARANTEES:

A. The Contractor guarantees the following provided under this Contract: Work and Services to be performed and all workmanship, materials and equipment performed, furnished, used or installed in the construction of the same shall be free from defects and flaws, and shall be performed and furnished in strict accordance with the Contract Documents, that the strength of all parts of all manufactured equipment shall be adequate and as specified and that the performance test requirements of the Contract shall be fulfilled. This guarantee shall be for a period of one year from and after the date of completion and acceptance of the Work as stated in the final estimate. If part of the Work is accepted in accordance with that subsection of this AGREEMENT titled "Partial Acceptance", the guarantee for that part of the Work shall be for a period of one year from the date fixed for such acceptance.

B. If at any time within the said period of guarantee any part of the Work requires repairing, correction or replacement, the Owner may notify the Contractor in writing to make the required repairs, correction or replacements. If the Contractor neglects to commence making such repairs, corrections or replacements to the satisfaction of the Owner within seven (7) days from the date of receipt of such notice, or having commenced fails to prosecute such Work with diligence, the Owner may employ other persons to make said repairs, correction or replacements, and charge the costs, including compensation for additional professional services, to the Contractor.

C. Whenever it is written that an equipment manufacturer must have a specified period of experience with his product, equipment which does not meet the specified experience period can be considered if the equipment supplier or manufacturer is willing to provide an "Efficiency Guarantee Bond" or cash deposit for the duration of the specified time period which will guarantee replacement of that equipment in the event of failure.

D. If at any time within the said period of guarantee, any part of the Work requires repairs, correction and/or replacement, the City may notify the Contractor in writing to make the

required repairs, correction or replacement. If the Contractor neglects to commence making such repairs, corrections, or replacements to the satisfaction of the City within ten (10) days from the date of receipt of such notice, or having commenced said repairs, corrections or replacement, fails to prosecute such work with diligence, the City may employ other person(s) to make the same, and all direct and indirect costs of making said repairs, corrections or replacements, including compensation for additional professional services, shall be paid by the Contractor.

27. UTILITY UNDERGROUND PLANT DAMAGE PREVENTION SYSTEM:

A. All excavations within public or private ways are subject to the requirements of Massachusetts General Laws, Acts of 1983, Chapter 252, included in Part II of the Supplementary Conditions.

END OF SECTION

FORM FOR GENERAL BID

To the Awarding Authority

A. The undersigned proposes to furnish all labor and materials required for the Brewer's Corner and Vicinity Pedestrian Access & Traffic Management Improvement Project, EECBG Grant Agreement Award No. DE-SC0003078, CDBG Agreement Award No. B-10-MC-25-0021 in Quincy, Massachusetts, in accordance with the accompanying Contract Documents prepared by Woodard & Curran and the Department of Planning and Community Development, for the Contract Price written below, subject to additions and deductions according to the terms of the specifications.

B. This Bid is accompanied by a Bid Security in the form of a Bid Bond issued by a company qualified to do business in the Commonwealth of Massachusetts or a certified check drawn upon a national or state bank and payable to the OWNER equal to five percent (5%) of the Bid Amount.

C. Contract award shall be made to the lowest eligible and responsible bidder based on the Contract Price written in the Bid Form.

D. The undersigned agrees that, if he/she is selected as General Contractor, he/she will within ten (10), 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 Performance Bond and also 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.

E. The undersigned hereby certifies that he/she 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 he/she will comply fully with all laws and regulations applicable to awards made subject to M.G.L. Section 44 A.

F. The undersigned certifies under penalties of perjury that there have been no substantial changes in his financial position or business organization other than those changes noted within the application since the applicant's most recent prequalification statement and that the bid is in all respects bona fide, fair and made without collusion or fraud with any other person. "Person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity which sells materials, equipment or supplies used in or for, or engages in the performance of, the same or similar construction, reconstruction, installation, demolition, maintenance or repair work or any part thereof.

G. 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.

H. Interest of Officers and Employees of the City of Quincy or Members of the City Council or Other Public Officials: No officer, member or employee of the City of Quincy or its designees or agents, and no member of its governing body, and no other public official of the governing body of the locality or localities in which the project is situated or being carried out, who

exercises any functions or responsibilities in the review or approval or the undertaking or carrying out of this project, shall participate in any decisions relating to this Contract, which affects his personal interest or the interest of any corporation, partnership, or association in which he is directly or indirectly interested or have any personal or pecuniary interest, direct or indirect, in this contract or the proceeds thereof.

I. 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 provision 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.

J. A Labor and Material or Payment Bond in the amount of 100% of the total Contract Price must be provided by the General Contractor. A Performance Bond in the amount of 100% of the total Contract Price must be provided by the General Contractor.

K. The time for holding bids, where Federal approval is not required is 30 days, Saturdays, Sundays and legal holidays excluded, after opening of bids and where Federal approval is required, the time period for holding bids is sixty (60) days, Saturdays, Sundays and holidays excluded after Federal approval.

L. The undersigned bidder hereby certifies that he/she will comply with the minority workforce percentage ratio and specific affirmative action steps contained in the EEO/AA provisions of this contract, including compliance with the Minority/Woman Business Enterprise as required under these contract provisions. The CONTRACTOR receiving the award of the contract shall be required to obtain from each of its Subcontractors a copy of the certification by said Subcontractor, regardless of tier, that it will comply with the minority workforce ratio and specific affirmative action steps contained in these EEO/AA contract provisions and submit it to the contracting agency prior to the award of such subcontract.

M. This project is subject to all requirements of M.G.L. Chapter 30, Section 39M.

N. Construction of the project shall occur in two phases. BIDDERS shall make all appropriate accommodations to include the impact of this bifurcated project schedule into their Bid Prices. The scope of work and schedule for each phase shall be as outlined below;

Phase 1

Schedule: Shall commence no later than May 1, 2011. Phase 1 shall be completed by August 1, 2011.

Scope of Work:

- Mobilization and Demobilization necessary for the execution of Phase 1.
- Procurement and furnishing of all LED traffic signal equipment (including loop detectors).
- Installation of all traffic signals and control equipment, except for loop detectors. The Contractor shall set the traffic signals in the timer mode, with timing sequence as noted on the Plans.
- All drainage system improvements.
- All sanitary system improvements.
- Geometric improvements at the Water Street/Copeland Street/Granit Street/Garfield Street and the at the Garfield Street/Arthur Street/Smith Street/Prout Street intersections.

- Construction of all sidewalk improvements including installation of structural soil mix within the treeways.
- Installation of signage.
- Construction of all Handicap Accessibility improvements.
- Providing temporary pavement markings as necessary for the proper flow and safety of traffic during Phase 1 and between Phase 1 and Phase 2.
- Providing temporary crosswalks markings.
- All temporary traffic controls and police details necessary for execution of Phase 1.

Phase 2:

Schedule: Shall commence no later than April 1, 2012. Phase 2 shall be substantially completed by June 1, 2012 and have achieved final completion by July 1, 2012.

Scope of Work:

- Mobilization and Demobilization necessary for the execution of Phase 2.
- Milling of existing asphalt.
- Installation of loop detectors.
- Adjustment to grade of all castings.
- Pavement resurfacing.
- Permanent pavement markings.
- Installation of inlaid crosswalks.
- Installation of treeways (geotextile fabric, sand bedding, edging, porous pavers, trees and mulch).
- Installation of site amenities (planters, benches, trash receptacles).
- All temporary traffic controls and police details necessary for execution of Phase 2.

O. The undersigned, as Bidder, declares that he understands that information relative to sub-surface and other conditions, natural phenomena, existing pipes and other structures (surface and/or sub-surface) has been furnished only for his information and convenience without any warranty or guarantee, expressed or implied, that the structures (surface and/or sub-surface) actually encountered will be the same as those shown on the drawings or in any of the other contract documents, and he agrees that he shall not use or be entitled to use any such information made available to him through the contract documents or otherwise, or obtained by him in his own examination or the site, as a basis or grounds for any claim against the City of the Engineer arising from or by reason or any variance which may exist between the aforesaid information made available to or acquired by him and the sub-surface and/or other conditions, natural phenomena, existing pipes and other structures (surface and/or sub-surface) encountered during construction, and that due allowance therefore has been made in this bid.

P. Bidder acknowledges receipt of the following ADDENDA:

_____

_____

_____

Date _____, 2011

A Corporation

_____
(Name of General Bidder)

_____
(State of Incorporation)

By _____
(Name of Person Signing Bid and Title)

(Corporate Seal)

Attest _____
(Secretary)

_____
(Business Address)

_____
(City and State)

_____
(Telephone No.)

A Partnership

_____
(Name of General Bidder)

By _____
(General Partner)

(Seal)

_____
(Business Address)

_____
(City and State)

_____
(Telephone No.)

BID FORM
UNIT PRICE ITEMS AND LABOR SERVICES

BREWER'S CORNER AND VICINITY PEDESTRIAN ACCESS
& TRAFFIC MANAGEMENT IMPROVEMENT PROJECT
EECBG AWARD NO. DE-SC0003078, CDBG AWARD NO. B-10-MC-25-0021

The Bidder agrees to perform all the Work described in the Contract Documents for the following unit prices or lump sum(s):

Item No.	Estimated Quantity	Brief Description of Items w/ Unit Bid Price in Words	Unit Bid Price in Figures	Amount in Figures
101.2	1	SITE PREPARATION		
		_____ per lump sum	$_____	$_____
102.09	11	TREE STUMP REMOVAL		
		_____ per each	$_____	$_____
102.19	11	TREE ROOT SYSTEM REMOVAL		
		_____ per each	$_____	$_____
103.01	11	TREE REMOVAL (DIAMETER UNDER 24 INCHES)		
		_____ per each	$_____	$_____
120.1	350	UNCLASSIFIED EXCAVATION		
		_____ per cubic yard	$_____	$_____
121.	5	CLASS A ROCK EXCAVATION		
		_____ per cubic yard	$_____	$_____
129.	5,517	BITUMINOUS CONCRETE EXCAVATION BY COLD PLANNING		
		_____ per square yard	$_____	$_____
141.	10	CLASS A TRENCH EXCAVATION		
		_____ per cubic yard	$_____	$_____

Item No.	Estimated Quantity	Brief Description of Items w/ Unit Bid Price in Words	Unit Bid Price in Figures	Amount in Figures
146.	3	DRAINAGE STRUCTURE REMOVED		
		_____ per each	$_____	$_____
146.1	1	SANITARY SEWER MANHOLE REMOVED		
		_____ per each	$_____	$_____
151.22	142	GRAVEL BORROW FOR SIDEWALKS		
		_____ per cubic yard	$_____	$_____
170.	2,500	FINE GRADING & COMPACTION OF SUB-GRADE/SUB-BASE AREAS		
		_____ per square yard	$_____	$_____
201.5.	3	CATCH BASINS		
		_____ per each	$_____	$_____
202.5.	1	DRAIN MANHOLES		
		_____ per each	$_____	$_____
202.7.	2	SANITARY SEWER MANHOLES		
		_____ per each	$_____	$_____
220.	10	DRAINAGE STRUCTURE, ADJUSTED		
		_____ per each	$_____	$_____
220.5	1	DRAINAGE STRUCTURE, REMODELED		
		_____ per each	$_____	$_____
220.7	11	SANITARY STRUCTURE, ADJUSTED		
		_____ per each	$_____	$_____

Item No.	Estimated Quantity	Brief Description of Items w/ Unit Bid Price in Words	Unit Bid Price in Figures	Amount in Figures
222.	2	REPLACEMENT FRAME W/GRATE OR COVER		
		_____ per each	$_____	$_____
243.12	47	12-INCH REINFORCED CONCRETE PIPE (CLASS IV)		
		_____ per linear foot	$_____	$_____
248.8	50	8-INCH PVC SANITARY PIPE		
		_____ per linear foot	$_____	$_____
248.10	10	10-INCH PVC DRAINAGE PIPE		
		_____ per linear foot	$_____	$_____
358.	46	GATE BOX ADJUSTED		
		_____ per each	$_____	$_____
376.2	1	HYDRANT – REMOVE AND RESET		
		_____ per each	$_____	$_____
381.	2	SERVICE BOX		
		_____ per each	$_____	$_____
402.	60	DENSE GRADED CRUSHED STONE		
		_____ per cubic yard	$_____	$_____
405.	20	GRAVEL FOR BASE COURSE		
		_____ per cubic yard	$_____	$_____
420.	10	CLASS I BITUMINOUS CONCRETE TYPE I-1 (BASE COURSE)		
		_____ per ton	$_____	$_____

Item No.	Estimated Quantity	Brief Description of Items w/ Unit Bid Price in Words	Unit Bid Price in Figures	Amount in Figures
460.	600	CLASS I BITUMINOUS CONCRETE PAVEMENT, TYPE I-1, FOR TOP COURSE		
		_____ per ton	$_____	$_____
460.5	150	CLASS I BITUMINOUS CONCRETE PAVEMENT, TYPE I-1, FOR LEVELING COURSE		
		_____ per ton	$_____	$_____
463.	3,310	BITUMEN FOR TACK/PRIME COAT		
		_____ per gallon	$_____	$_____
472.	10	HOT MIX ASPHALT FOR MISC. USE		
		_____ per ton	$_____	$_____
503.	510	GRANITE CURB - TYPE VA-3 STRAIGHT		
		_____ per linear foot	$_____	$_____
503.1	237	GRANITE CURB - TYPE VA-3 CURVED		
		_____ per linear foot	$_____	$_____
517.	2	GRANITE CURB CORNER		
		_____ per each	$_____	$_____
580.	2,150	CURB REMOVED & RESET		
		_____ per linear foot	$_____	$_____
583.	26	GRANITE CURB CORNER REMOVED & RESET		
		_____ per each	$_____	$_____

Item No.	Estimated Quantity	Brief Description of Items w/ Unit Bid Price in Words	Unit Bid Price in Figures	Amount in Figures
590.	100	GRANITE CURB REMOVED & STACKED		
		_____ per linear foot	$_____	$_____
701.	1,713	CEMENT CONCRETE SIDEWALK – 1 COURSE		
		_____ per square yard	$_____	$_____
701.1	318	CEMENT CONCRETE SIDEWALK AT DRIVEWAY		
		_____ per square yard	$_____	$_____
701.31	200	CEMENT CONCRETE WHEELCHAIR RAMPS		
		_____ per square yard	$_____	$_____
702.3	3,115	INLAID THERMOPLASTIC ASPHALT PAVEMENT MARKING SYSTEM		
		_____ per square foot	$_____	$_____
707.25	1	TRASH RECEPTACLE REMOVED AND RESET		
		_____ per each	$_____	$_____
715.1	3	MAIL BOX REMOVED AND RESET		
		_____ per each	$_____	$_____
748.	1	MOBILIZATION / DEMOBILIZATION		
		_____ per lump sum	$_____	$_____
751.	19	LOAM BORROW		
		_____ per cubic yard	$_____	$_____
755.	120	STRUCTURAL SOIL MIX		
		_____ per cubic yard	$_____	$_____

Item No.	Estimated Quantity	Brief Description of Items w/ Unit Bid Price in Words	Unit Bid Price in Figures	Amount in Figures
765.	513	SEEDING		
		_____ per square yard	$_____	$_____
804.2	40	2-INCH ELECTRICAL CONDUIT TYPE NM – PLASTIC – (UL) (SINGLE)		
		_____ per foot	$_____	$_____
804.3	420	3-INCH ELECTRICAL CONDUIT TYPE NM – PLASTIC – (UL) (SINGLE)		
		_____ per foot	$_____	$_____
804.32	10	3-INCH ELECTRICAL CONDUIT TYPE NM – PLASTIC – (UL) (DOUBLE)		
		_____ per foot	$_____	$_____
811.31	1	PULL BOX 12 INCHES X 12 INCHES – SD 2.031		
		_____ per each	$_____	$_____
811.324	1	PULL BOX 12 INCHES X 24 INCHES		
		_____ per each	$_____	$_____
815.981	5	MAST ARM FOOTING COST ADJUSTMENT		
		_____ per foot	$_____	$_____
816.01	1	TRAFFIC CONTROL SIGNAL RECONSTRUCTION		
		_____ per lump sum	$_____	$_____
816.80	1	FLASHING WARNING BEACON REMOVED AND STACKED		
		_____ per lump sum	$_____	$_____
832.1	125	WARNING, REGULATORY SIGNS AND ROUTE MARKERS (ALUMINUM) – TYPE A		
		_____ per square foot	$_____	$_____

Item No.	Estimated Quantity	Brief Description of Items w/ Unit Bid Price in Words	Unit Bid Price in Figures	Amount in Figures
847.1	51	SIGN SUPPORT (NOT GUIDE) AND ROUTE MARKER - STEEL		
		_____ per each	$_____	$_____
851.	90	SAFETY CONTROLS FOR CONSTRUCTION OPERATIONS		
		_____ per unit day	$_____	$_____
852.	200	SAFETY SIGNING FOR CONSTRUCTION OPERATIONS		
		_____ per square foot	$_____	$_____
853.1	6	PORTABLE BREAKAWAY BARRICADE TYPE III		
		_____ per each	$_____	$_____
854.014	3,970	TEMPORARY PAVEMENT MARKINGS – 4 INCH (PAINTED)		
		_____ per foot	$_____	$_____
854.017	1,558	TEMPORARY PAVEMENT MARKINGS – 12 INCH (PAINTED)		
		_____ per foot	$_____	$_____
854.034	200	TEMPORARY PAVEMENT MARKINGS – 4 INCH (REMOVABLE) TAPE		
		_____ per foot	$_____	$_____
854.1	100	PAVEMENT MARKING REMOVAL		
		_____ per square foot	$_____	$_____
859.	11,000	REFLECTORIZED DRUM		
		_____ per drum day	$_____	$_____
859.1	1,000	REFLECTORIZED DRUM WITH FLASHER		
		_____ per drum day	$_____	$_____

Item No.	Estimated Quantity	Brief Description of Items w/ Unit Bid Price in Words	Unit Bid Price in Figures	Amount in Figures
866.04	310	4-IN. REFLECTORIZED WHITE LINE (THERMOPLASTIC)		
		_____ per foot	$_____	$_____
866.12	1,360	12-IN. REFLECTORIZED WHITE LINE (THERMOPLASTIC)		
		_____ per foot	$_____	$_____
867.04	1,970	4-IN. REFLECTORIZED YELLOW LINE (THERMOPLASTIC)		
		_____ per foot	$_____	$_____
874.	13	STREET NAME SIGN		
		_____ per each	$_____	$_____
874.211	1	KING SQUARE MONUMENT SIGN REMOVED AND RESET		
		_____ per each	$_____	$_____
874.212	1	DALEY SQUARE MONUMENT SIGN REMOVED AND RESET		
		_____ per each	$_____	$_____
874.213	1	DAVIS SQUARE MONUMENT SIGN REMOVED AND RESET		
		_____ per each	$_____	$_____
874.45	6	MISCELLANEOUS SIGNS REMOVED AND RESET		
		_____ per each	$_____	$_____
874.5	1	MISCELLANEOUS SIGNS REMOVED AND STACKED		
		_____ per lump sum	$_____	$_____
904.	10	CONCRETE		
		_____ per cubic yard	$_____	$_____

Item No.	Estimated Quantity	Brief Description of Items w/ Unit Bid Price in Words	Unit Bid Price in Figures	Amount in Figures
910.	6	BENCH		
		_____ per each	$_____	$_____
911.	6	TRASH RECEPTACLE		
		_____ per each	$_____	$_____
912.	1	BREWER'S CORNER MONUMENT SIGN/PLAQUE		
		One Thousand Dollars and No Cents per allowance	$ 1,000.00	$ 1,000.00
913.	2	LANDSCAPED PLANTER		
		_____ per each	$_____	$_____
913.1	6	LANDSCAPED TREEWAY (3'x24')		
		_____ per each	$_____	$_____
913.2	1	LANDSCAPED TREEWAY (3'x12')		
		_____ per each	$_____	$_____
915	2	BOLLARDS		
		_____ per each	$_____	$_____
999.001	1	TRAFFIC POLICE DETAILS		
		Forty Thousand Dollars and No Cents per allowance	$ 40,000.00	$ 40,000.00

TOTAL BID AMOUNT:

_____ **$**_____

(In words) ***(In Figures)***

SCHEDULE OF PARTICIPATION
MINORITY AND WOMEN BUSINESS ENTERPRISE

ITEM I - Minority Business Enterprise Participation in the Works

Name and Address of MBE	Nature of Participation	Dollar Value of Participation
1. _____.		
_____		
2. _____.		
_____		
_____		

Total MBE Commitment: _____.___

Percentage MBE Participation (Total Commitment) / (Total Bid Price) = _____

ITEM II - Women's Business Enterprise Participation in the Works

Name and Address of WBE	Nature of Participation	Dollar Value of Participation
1. _____-		
_____		
_____		
2. _____.		
_____		
_____		

Total WBE Commitment: _____.___

Percentage WBE Participation (Total Commitment) / (Total Bid Price) = _____.___

The bidder agrees to furnish implementation reports as required by the Awarding Authority to indicate the M/WBE which it has used or intends to use. Breach of this commitment constitutes a breach of contract.

Name of General Bidder:_____.

Date:_____ By:_____.
(Signature)

Note: Participation of a minority-owned or women-owned enterprise may be counted in only one category; the same participation cannot be used in computing the percentage of the Minority Participation and again of Women Participation.

THIS FORM MUST BE SUBMITTED WITH THE BID. EEO-190

LETTER OF INTENT - MINORITY BUSINESS ENTERPRISE

This form is to be completed by the MBE and must be submitted by the General Contractor as part of the bid proposal. A separate form must be completed for each MBE and WBE involved in the project.

Project Title:_____ **Project Location:**_____.

TO:_____
(Name of Bidder)

FROM:_____
(Name of MBE)_____

☐ I/We intend to perform work in connection with the above project as:

[ ] an individual [ ] a partnership
[ ] a corporation [ ] a joint venture with _____.
[ ] other (explain):_____.

☐ It is understood that if you are awarded the contract, you intend to enter into an agreement to perform the activity described below for the prices indicated.

MBE Participation

Description of Activity	Project Date Commencement	$ Amount	% of Bid Price

The undersigned certify that they will enter into a formal agreement upon execution of the contract for the above referenced project.

BIDDER

_____
(Authorized Signature) DATE

ADDRESS:_____

_____

PHONE: (__)_____

MBE

_____.
(Authorized Signature) DATE

ADDRESS:_____.

_____.

PHONE: (__)_____.

******Copy of SOMWBA Certification Letter Must Be Attached and Submitted with Bid.**

LETTER OF INTENT – WOMEN'S BUSINESS ENTERPRISE

This form is to be completed by the WBE and must be submitted by the General Contractor as part of the bid proposal. A separate form must be completed for each MBE and WBE involved in the project.

Project Title:_____ **Project Location:**_____

TO:_____
(Name of Bidder)

FROM:_____
(Name of WBE)_____

☐ I/We intend to perform work in connection with the above project as:

[ ] an individual [ ] a partnership
[ ] a corporation [ ] a joint venture with _____._____
[ ] other (explain):_____._____

☐ It is understood that if you are awarded the contract, you intend to enter into an agreement to perform the activity described below for the prices indicated.

WBE Participation

Description of Activity	Project Date Commencement	$ Amount	% of Bid Price

The undersigned certify that they will enter into a formal agreement upon execution of the contract for the above referenced project.

BIDDER

_____
(Authorized Signature) DATE

ADDRESS:_____

_____

PHONE: (__)_____

WBE

_____.
(Authorized Signature) DATE

ADDRESS:_____.

_____.

PHONE: (__)_____.

******Copy of SOMWBA Certification Letter Must Be Attached and Submitted with Bid.**

BIDDERS CERTIFICATION OF COMPLIANCE WITH MINORITY AND WOMEN BUSINESS ENTERPRISE REQUIREMENTS

The Bidder hereby certifies he/she shall comply with the minority manpower ratio and specific action steps contained in the Supplemental Equal Employment Opportunity Anti-Discrimination and Affirmative Action provisions herein. The CONTRACTOR receiving the award of the Contract shall be required to obtain from each of its Subcontractors, and submit to the Awarding Authority prior to the performance of any work under said Contract, a certification by said Subcontractor, regardless of tier, that it will comply with the Minority Manpower Ratio and Specific Affirmative Action steps contained in the Supplemental EEO.

OFFEROR _____ _____

AUTHORIZED SIGNATURE

_____ _____

Printed Name and Title

_____ _____

Date Offered

COUNTY _____

STATE OF INCORPORATION _____

PHONE _____

TAX I.D. NUMBER _____

COMMONWEALTH OF MASSACHUSETTS
VENDOR INFORMATION FORM

Awarding Authority:		
Contract Name:	Contract Project Number:	
Company Name:		
Street Address 1:		
Street Address 2:		
City:	State:	Zip Code:
Telephone Number: ( ) -	Fax Number: ( ) -	E-mail Address:
WWW Address:	Dunn & Bradstreet Number:	Federal Employer ID No.
County:	Contact Person:	

What geographic area does your firm service?

- ☐ Metropolitan Boston
- ☐ Southeastern Mass
- ☐ Western Mass
- ☐ North of Boston
- ☐ Massachusetts (Entire State)
- ☐ Rhode Island
- ☐ New Hampshire
- ☐ Connecticut
- ☐ Vermont
- ☐ New Jersey
- ☐ New York
- ☐ Connecticut

Primary SIC Code	**Secondary SIC Code**

Date company was founded:

Gross Annual Sales

- ☐ $0 - $49,999
- ☐ $50,000 - $99,999
- ☐ $100,000 - $ $499,999
- ☐ $500,000 - $999,999
- ☐ $1,000,000 - $2,499,999
- ☐ $2,500,000 - $4,999,999
- ☐ $5,000,000 - $10,000,000
- ☐ Over $10,000,000

Number of Employees

- ☐ 1- 10 employees
- ☐ 10 – 20 employees
- ☐ 20 – 30 employees
- ☐ 30 – 50 employees
- ☐ OVER 50 employees

Bonding Capacity

- ☐ $0 - $49,999
- ☐ $50,000 - $99,999
- ☐ $100,000 - $ $499,999
- ☐ $500,000 - $999,999
- ☐ $1,000,000 - $2,499,999
- ☐ $2,500,000 - $4,999,999
- ☐ $5,000,000 - $10,000,000
- ☐ Over $10,000,000

Business Structure

- ☐ Profit
- ☐ Non-Profit
- ☐ S Corporation
- ☐ C Corporation
- ☐ Sole Proprietor
- ☐ Partnership
- ☐ Joint Ventures
- ☐ LLC

Are you a minority-owned firm?	☐ Yes	☐ No
Are you a women-owned firm?	☐ Yes	☐ No
Are you certified by the State Office of Minority and Women Business Assistance (SOMWBA)?	☐ Yes	☐ No
If you are SOMWBA certified are you certified as an? ☐ MBE	☐ WBE	☐ DBE
Are you certified by Division of Capital Assets Management and Maintenance formerly know as DCPO?	☐ Yes	☐ No
Are you pre-qualified with the Massachusetts Highway Department?	☐ Yes	☐ No

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COMMONWEALTH OF MASSACHUSETTS
VENDOR INFORMATION FORM (PAGE 2)

Largest State Contract:		
☐ $0 - $49,999	☐ $500,000 - $999,999	☐ $5,000,000 - $10,000,000
☐ $50,000 - $99,999	☐ $1,000,000 - $2,499,999	☐ Over $10,000,000
☐ $100,000 - $ $499,999	☐ $2,500,000 - $4,999,999	
Contracting Agency for Largest State Contract:		
Company Comments: (Include a brief description of the goods and/or services your company provides.		
Name of President or CEO	Date:	
Telephone Number:		
Name of Individual Completing the Form	Date:	
Telephone Number:		

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CERTIFICATE AS TO CORPORATE BIDDER

I,_____,

certify that I am the _____

of the corporation named as Bidder in the Form for General Bid: that _____ who signed the said Form for General Bid on behalf of the Bidder was then _____ of said corporation; that the signature thereto is genuine; and that said Form for General Bid was duly signed, sealed and executed for and in behalf of said corporation by authority of its governing body.

(CORPORATE SEAL)

Dated _____, 201__

CITY OF QUINCY
Purchasing Department
1305 Hancock Street, Quincy, MA 02169

Phone: 376-1060
Fax: 376-1074

TAX COMPLIANCE CERTIFICATE
MASS. GENERAL LAWS, CH. 62C, S: 49A(b)

I hereby certify that I have complied with all laws of the Commonwealth of Massachusetts

relating to taxes, reporting of employees and contractors, and withholding of child support.

Signed under the pains and penalties of perjury.

(1) Individual Contractor

_____
(Contractor's Name and Signature)

Social Security Number

_____

(2) Corporation, Association or Partnership

_____
(Contractor's Name)

Federal Tax ID Number, or
Social Security Number

_____

By:

_____
(Authorized Signature)

Note to Contractor: **Please sign at (1) or (2), whichever applies.**

Chapter 62C: Section 49A Certification of compliance with tax laws as prerequisite to obtaining license or governmental contract

Section 49A. (a) Any person applying to any department, board, commission, division, authority, district or other agency of the commonwealth or any subdivision of the commonwealth, including a city, town or district, for a right or license to conduct a profession, trade or business, or for the renewal of such right or license, shall certify upon such application, under penalties of perjury, that he has complied with all laws of the commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support. Such right or license shall not be issued or renewed unless such certification is made.

(b) No contract or other agreement for the purposes of providing goods, services or real estate space to any of the foregoing agencies shall be entered into, renewed or extended with any person unless such person certifies in writing, under penalties of perjury, that he had complied with all laws of the commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support.

(c) Any such agency, which has been notified by the commissioner pursuant to section forty-seven A that a person who holds a license or certificate of authority issued by such agency or who has agreed to furnish goods, services or real estate space to such agency has neglected or refused to file any returns or to pay any tax required under this chapter and that such person has not filed in good faith a pending application for abatement of such tax or a pending petition before the appellate tax board contesting such tax or has been penalized pursuant to section 9 of chapter 62E for failure to comply with the provisions under said chapter 62E relating to reporting of employees and contractors, or has been penalized pursuant to paragraph (3) of subsection (f) of section 12 of chapter 119A for failure to comply with the provisions under said chapter 119A relating to withholding and remitting child support, shall refuse to reissue, renew or extend such license, certificate of authority, contract or agreement until the agency receives a certificate issued by the commissioner that the person is in good standing with respect to any and all returns due and taxes payable to the commissioner as of the date of issuance of said certificate, including all returns and taxes referenced in the initial notification or, if the licensee has been penalized for failure to comply with the provisions relating to reporting of employees and contractors under chapter 62E or withholding and remitting child support under chapter 119A, a certificate issued by the commissioner that the licensee is in compliance with said provisions.

(d) Any person who owns or leases a motor vehicle or trailer that is required to be registered in the commonwealth under chapter 90 and improperly registers the motor vehicle or trailer in another state or misrepresents the place of garaging of the motor vehicle or trailer in another city or town, shall be considered in violation of laws of the commonwealth relating to taxes under chapter 60A, chapter 64H or chapter 64I. The right, license or contract provided for in subsections (a) and (b) shall not be issued or renewed until the person or business entity has paid all taxes due at the time of application for such right, license or contract.

(e) Any person who, for the purpose of evading payment of a tax pursuant to chapters 59 to 64J, inclusive, willfully makes and subscribes any return, form, statement or other document pursuant to subsection (a), (b) or (d) that contains or is verified by a written declaration that is made under the penalties of perjury, and that contains information that he does not believe to be true and correct as to every matter material to his compliance with all laws of the commonwealth relating to taxes, shall be subject to section 73.

NON-COLLUSION AFFIDAVIT OF BIDDER
(to be submitted by all General Bidders)

State of _____

County of _____

_____ , being duly sworn, deposes and says that:

(1) He/She is (owner, partner, officer, representative or agent) of
_____ ,
the Bidder that has submitted the attached bid;

(2) He/She is fully informed respecting the preparation and contents of the attached bid and of all pertinent circumstances respecting such bid;

(3) Such bid is genuine and is not a collusive or sham bid;

(4) Neither the said Bidder, nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affidavit, has in any way colluded, conspired, connived or agreed directly or indirectly, with any other Bidder, firm or person to submit a collusive or sham bid in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or communication or conference with any other Bidder, firm or person to fix any overhead, profit or cost element of the bid price, or the bid price of any other Bidder; or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the City of Quincy or any other person interested in the proposed Contract;

(5) The price or prices quoted in the attached are fair and proper and are not tainted by a collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affidavit.

Signed: _____

Title: _____

Subscribed and sworn to before me this _____ day of _____, 201__.

Title: _____

My Commission Expires: _____

Contractor' Certification

A contractor will not be eligible for award of a contract unless such contractor has submitted the following certification, which is deemed a part of the resulting contract:

CONTRACTOR'S CERTIFICATION

_____

Name of the General Contractor

Certifies that:

1. It intends to use the following listed construction trades in the work under contract:

   _____

   _____

2. Will comply with the minority workforce ratio and specific affirmative action steps contained herein: and

3. Will obtain from each of its subcontractors and submit to the contracting or administering agency prior to the award of any subcontract under this contract the subcontractor's certification required by these bid conditions.

_____

Signature of Authorized
Representative

Note: This form may be substituted with standard form issued by bonding agency

OSHA CERTIFICATION

I. CERTIFICATION REGARDING HEALTH AND SAFETY

The undersigned hereby certifies that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work; that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least ten hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and that he will comply fully with all laws and regulations application to awards made subject to section 44A.

Date: _____

_____
Name of General Bidder

By _____
Signature

_____
Print name and title

_____
Business Address

_____
Street Address City and State

CERTIFICATION OF BIDDER
REGARDING EQUAL EMPLOYMENT OPPORTUNITY

This certification is required pursuant to Executive Order 112A6 (30 R.R. 123 1935). The implementing rules and regulations, provide that any bidder or prospective contractor, or any of their proposed subcontractors, shall state as an initial part of the bid or negotiations of the contract whether it has participated in any previous contract or subcontract subject to the equal opportunity cause: and, if so, whether it has filed all compliance reports due under applicable instructions.

Where the certification indicates that the bidder has not filed a compliance report due under applicable instructions, such bidder shall be required to submit a compliance report within seven (7) calendar days after bid opening. No contract shall be awarded unless such report is submitted.

CERTIFICATION BY BIDDER

NAMES AND ADDRESS OF BIDDER (Include Zip Code):

1. Bidder has participated in a previous contract or subcontract subject to the Equal Opportunity Clause.

   Yes No

2. Compliance reports were required to be filed in connection with such contract or subcontract.

   Yes No

3. Bidder has filed all compliance reports due under applicable instructions, including SF-100.

   Yes No

4. Have you ever been or are you being considered for sanction due to violation of the Executive of 112A6, as amended?

   Yes No

Name and Title of Signatory (Please Type)

Signature:_____ Date:_____

RIGHT-TO-KNOW LAW

A bidder will not be eligible for award of this contract under this invitation for bids unless such bidder has submitted as part of its bid the following certification which will be deemed a part of the resulting contract.

CERTIFICATION

The Bidder hereby certifies that, if awarded this contract, he will fully comply with the Massachusetts Right-To-Know Law, c.470 of the Acts of 1983, (the Act). In addition, he shall:

1. obtain a Material Safety Data Sheet (MSDS), for all substances or mixtures of which appear on the Massachusetts Substance List that he or any of his subcontractors brings to or uses on the work site and will keep a copy of the MSDS on the work site of this contract;

2. label each container of a substance or mixture of substances on the Massachusetts Substance List, as required, in section 7 of the Act;

3. provide the same training and non-technical instruction that he is required to provide under section 15 of the Act to all Quincy personnel. Training shall include instructing on the nature and effects of any substance or mixture of substances listed on the Massachusetts Substance List which the Bidder or any of his subcontractors brings to or uses on the worksite.

4. provide to Quincy DPW employees on the work site the same protective equipment that the bidder or any of his subcontractors provides to his employees.

_____
Signature of Authorized Representative of Bidder

Bidder's Name: _____

Bidder's Address: _____

_____

CERTIFICATION
NON-SEGREGATED FACILITIES

The Bidder certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under this control, where segregated facilities are maintained. The Bidder certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments and that he will not permit his employees to perform their services at any location under his control where segregated facilities are maintained. The Bidder agrees that a breach of this certification will be a violation of the Equal Opportunity clause in any contract resulting from acceptance of this bid. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms, and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion or national origin, because of habit, local custom or otherwise. The Bidder agrees that (except where he has obtained identical certification from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding $10,000.00 which are not exempt from the provisions of the Equal Opportunity clause, and that he will retain such certifications in his file.

Note: The penalty for making false statements in offers is prescribed in 18 U.S.C. ss.1001.

Date:_____, 201__

_____
(Name of Bidder)

Official Address (including Zip Code)

By:_____

_____

_____
(Title)

_____

AFFIDAVIT
REGARDING PRIOR LABOR DISPUTES

The Bidder must execute and complete the following statements as to whether it has been the subject of, or otherwise been involved in, any labor dispute during the past five (5) years. If the Bidder has been the subject of, or otherwise been involved in any labor dispute during this period, the bidder must also provide a detailed description of each labor dispute, including the name and location of the project worked on, the nature of the dispute was resolved. For these purposes, "labor disputes" shall include picketing or any other activity which disrupted or delayed the work.

I _____ , being first duly sworn, do hereby depose/state:
(Name)

1. I make each of the following statements with full authorization to bind

   _____ to each of the representations made below.
   (Name of Bidder)

2. _____ has/has not been involved in a labor dispute
   (Name of Bidder)

   as described above, within the past five (5) years.

3. (Complete only if bidder has been involved in dispute).

   The dispute(s) occurred on the following project(s). (Use separate sheet if necessary)

Name and Location of Project	Date Dispute Began	Date Concluded
a.		
b.		

   Attach separate sheet and give full description of the nature of each dispute and an explanation of how it was resolved. (Please give a full description below, for each such dispute).

Signed under the penalty of perjury this _____ day of _____ , 201__ .

BY: _____

on behalf of: _____
(company name)

(To be typed onto letterhead of the Certified Public Accountant)

City of Quincy
City Solicitor's Office
1305 Hancock Street
Quincy, MA 02169

Attn: James S. Timmins
City Solicitor

RE: _____
Project Name

Dear Mr.Timmins:

Please be advised that I have reviewed the statement on internal accounting controls prepared by/for _____ (name of company), in connection with the above captioned project. This statement is required under Massachusetts General Laws, Chapter 30, Section 39R. In our opinion, representations of management are consistent with our evaluation of the system of internal accounting controls. In addition, we believe that they are reasonable with respect to transactions and assets in amounts which would be material when measured in relation to the firm's financial statements.

Yours sincerely,

_____
Certified Public Accountant

Note: This form is to be completed only when the contract exceeds $100,000.00 and is for the purchase of materials or for the construction, renovation, etc. of public works or public buildings.

CERTIFICATION

Internal Accounting

The Contractor certifies that it has internal accounting controls, as required by Chapter 30, Section 39R and that the Contractor will:

1. maintain accurate and detailed accounts for a six (6) year period after the final payment;

2. file regular statements of management concerning internal auditing controls;

3. file an annual audited financial statement; and

4. submit a statement from an independent certified public accountant that such CPA has examined management's internal auditing controls and expresses an opinion as to their consistency with management's statements in (2) above, and whether such statements are reasonable with respect to transactions and assets that are substantial in relation to designer's financial statements. General Laws, Chapter 7, Section 301 (e).

Signed under the pains and penalties of perjury:

_____

Name of Company

_____

Authorized Signature

Note: This form is to be completed only when the contract exceeds $100,000 and is for the purchase of materials or for the construction, renovation, etc. of public works or public buildings.

MASSACHUSETTS DIESEL RETROFIT PROGRAM (MDRP)

The Department of Environmental Protection has developed the Massachusetts Diesel Retrofit Program (MDRP) in response to increasing public health concerns with the emissions from diesel engines and vehicles. To control these emissions, the MDRP has identified oxidation catalyst retrofits as the control technology of choice. These retrofits consist of either an in-line replacement engine muffler system or an add-on control device. Compliance with the MDRP is technology based, such that installation of an EPA-certified (or equivalent) control device will constitute full compliance.

STATEMENT OF INTENT TO COMPLY

This form must be signed and submitted by the bidder as part of the bid.

Local Governmental Unit _____ **SRF Project No.** _____

Contract No. _____ **Contact Title** _____

Bidder _____

The undersigned, on behalf of the above-named Bidder, agrees that, if awarded the contract, the Bidder will comply with the Massachusetts Diesel Retrofit Program (MDRP) by having all of the off-road (non-registered) diesel vehicles/equipment used on the contract equipped with, or retrofitted with, after-engine emission controls that are EPA certified or their equivalent.

_____

(Signature of Bidder's Authorized Representative) **(Date)**

BID BOND

NOTE: This form may be substituted for the standard forms issued by bonding company.

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned _____ _____ as Principal, and _____ as Surety, are hereby held and firmly bound unto the City of Quincy, Massachusetts as OWNER in the penal sum of _____ for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors and assigns.

Signed, this _____ day of _____,201___.

The Condition of the above obligation is such that whereas the Principal has submitted to the City of Quincy, Massachusetts, a certain BID, attached hereto and hereby made a part hereof to enter into a contract in writing, for Brewer's Corner and Vicinity Pedestrian Access & Traffic Management Improvement Project, EECBG Grant Agreement Award No. DE-SC0003078, CDBG Agreement Award No. B-10-MC-25-0021.

NOW, THEREFORE,

(a) If said Bid shall be rejected, or

(b) If said Bid shall be accepted and the Principal shall execute and deliver an Agreement in the Form of Agreement attached hereto (properly completed in accordance with said Bid) and shall furnish a Bond for faithful performance of said Contract, and for the payment of all persons performing labor and furnishing materials in connection therewith, and shall in all other respects perform the Agreement created by the acceptance of said Bid, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its Bond shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such Bid: and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officer, the day and year first set forth above.

_____
Principal

_____
Surety

By:_____

IMPORTANT: Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.

OFFEROR _____ _____

AUTHORIZED SIGNATURE

_____ _____

Printed Name and Title

_____ _____

Date Offered

COUNTY _____

STATE OF INCORPORATION _____

PHONE _____

TAX I.D. NUMBER _____

ARRA BUY AMERICAN CONTRACT AGREEMENT
FOR LED TRAFFIC SIGNAL MODULES

The Contractor acknowledges to and for the benefit of the City of Quincy ("Purchaser") and the State of Massachusetts (the "State") that it understands the goods and services for the LED Traffic Signal portion of this project are being funded with monies made available by the federal American Recovery and Reinvestment Act of 2009 (ARRA) (or are being made available for a project being funded with monies made available by the federal ARRA) and such law contains provisions commonly known as "Buy American;" that requires all of the iron, steel, and manufactured goods used in the project be produced in the United States ("Buy American Requirements") including iron, steel, and manufactured goods provided by the Contactor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the Buy American Requirements, (b) all of the iron, steel, and manufactured goods used in the project will be and/or have been produced in the United States in a manner that complies with the Buy American Requirements, unless a waiver of the requirements is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the Buy American Requirements, as may be requested by the Purchaser or the State. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense or cost (including without limitation attorney's fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser). While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

Date _____, 201___

A Corporation

_____
(Name of General Bidder)

_____
(State of Incorporation)

By _____
(Name of Person Signing Bid and Title)

(Corporate Seal)

Attest _____
(Secretary)

_____
(Business Address)

_____
(City and State)

_____
(Telephone No.)

A Partnership

_____
(Name of General Bidder)

By _____
(General Partner)

(Seal)

_____
(Business Address)

_____
(City and State)

_____
(Telephone No.)

CERTIFICATION REGARDING LOBBYING
CERTIFICATION FOR CONTRACTS, GRANTS, LOANS
AND COOPERATIVE AGREEMENTS

The undersigned certifies, to the best of his or her knowledge and belief, that:

A. No federal appropriated funds have been paid or shall be paid by or on behalf of the undersigned to any person for influencing or attempting to influence an officer or employee of an agency, a member of Congress, an officer or employee of Congress or an employee of a member of Congress in connection with the awarding of any federal ARRA-recipient Agreement, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement and the extension, continuation, renewal, amendment or modification of any federal ARRA recipient Agreement, grant, loan or cooperative agreement.

B. If any funds other than federal appropriated funds have been paid or shall be paid to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this federal ARRA-recipient Agreement grant, loan or cooperative agreement, the undersigned shall complete and submit standard form Disclosure Form to Report Lobbying form in accordance with its instructions.

C. The undersigned shall require that the language of this certification be included in the award documents for all sub-awards including sub-contracts, sub-grants and Program ARRA-recipient Agreements under grants, loans, and cooperative agreements and that all ARRA-recipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C § 1352. Any person who fails to file the required certification shall be subject to a civil penal of no Iess than $10,000 and not more than $100,000 for each such failure.

_____ _____, 201___
Signature Date

_____ _____
Name of Authorized Individual Application or Grant Number

_____
Name of Organization

_____
Address of Organization

Department of Planning and Community Development
1305 Hancock Street, Quincy, Massachusetts 02169
Tel. (617) 376-1362 FAX (617) 376-1097
TTY/TDD (617) 376-1375

ACKNOWLEDGEMENT OF BIDDERS
PROVISION OF LED TRAFFIC SIGNAL MODULES

Provision of the LED Traffic Signal Modules at the Water Street/Copeland Street/Granite Street/Smith Street intersection is being funded by the American Recovery and Reinvestment Act (Recovery Act) of 2009, Public Law 111-5. In a grant effective November 4, 2009, the City of Quincy through the Department of Planning and Community Development was awarded an Energy Efficiency Conservation Block Grant (EECBG) funded by the United States Department of Energy, ***Assistance Agreement Award No DE-SC0003078.***

Pursuant to the U.S. Department of Energy Financial Assistance- Funding Opportunity Announcement ***#DE-FOA-000001*** dated April 24, 2009, and in keeping with the agenda of the Recovery Act, and supporting the goal of immediate investment in the economy, entities are required to obligate funds for all approved activities within eighteen (18) months from the effective date of the award.

Obligation of funds is defined as those funds for which binding commitments have been made; e.g., funds encumbered and represented as an un-liquidated contract.

Pursuant to the above requirements, **by Tuesday, March 1, 2011,** the General Contractor shall submit written verification in the form of an executed subcontract, purchase order, or other commitment document that subcontractor / vendor is under contract to provide the LED Traffic Signal Modules Signal.

All questions related to the above requirements shall be directed this RFQ should be directed to Kathryn Hobin, Purchasing Agent through fax: 617-376-1074 and email: khobin@quincyma.gov and cc: to ktrillcott@quincyma.gov .

Questions will be accepted until January 13 2011 at 3:00 p.m.

BIDDER'S ACKNOWLEDGEMENT

_____ _____
(Authorized Signature) DATE

ADDRESS: _____.

_____

PHONE: (_____) _____

CERTIFICATION CONCERNING
RESPONSIBLE EMPLOYER ORDINANCE

It is hereby certified as a condition for bidding that the bidder and all subcontractors under the bidder shall comply with all of the provisions of the Quincy Responsible Employer Ordinance and with all amendments thereto.

_____
Name of Bidder or Sub-contractor

By: _____
Authorized Agent

_____
Print or Type Name

RELEVANT PREVIOUS EXPERIENCE FORM
GENERAL CONTRACTOR

Bidder's name: _____

Project: Brewer's Corner and Vicinity Pedestrian Access & Traffic Management Improvement Project, Quincy, Massachusetts

Bidder must provide references for:

Relevant similar completed projects on the past three (3) years.

Reference: _____Contact: _____
Address: _____Phone: _____
_____ _____Fax: _____
Description and date of project: _____
_____
Bonding company:_____
Name of general contractor: _____

Reference: _____Contact: _____
Address: _____Phone: _____
_____Fax: _____
Description and date of project: _____
_____
Bonding company: _____
Name of general contractor: _____

Reference: _____Contact:_____
Address: _____Phone: _____
_____Fax:
Description and date of project: _____
_____
Bonding company: _____
Name of general contractor: _____

Reference: _____Contact: _____
Address: _____Phone: _____
_____Fax: _____
Description and date of project: _____
_____
Bonding company: _____
Name of general contractor: _____

RELEVANT PREVIOUS EXPERIENCE FORM
TRAFFIC SIGNAL SUBCONTRACTOR

Bidder's Name: _____

Project: Brewer's Corner and Vicinity Pedestrian Access &Traffic Management Improvement Project, Quincy, Massachusetts

Bidder must provide references for:

The intended Traffic Signal Subcontractor shall provide a list of five (5) or more completed projects of similar size and scope within the past three (3) years with appropriate contacts for the Owners review and use in checking qualifications. The Owner reserves the right to reject the traffic signal subcontractor which, in the Owner's judgment, is not adequately qualified to perform the work. No additional compensation shall be made to the General Contractor due to the Owner's decision to reject the traffic signal Subcontractor and/or electricians."

Reference: _____Contact: _____
Address: _____Phone: _____
_____ _____Fax: _____
Description and date of project: _____
_____
Bonding company:_____
Name of general contractor: _____

Reference: _____Contact: _____
Address: _____Phone: _____
_____Fax: _____
Description and date of project: _____
_____
Bonding company: _____
Name of general contractor: _____

Reference: _____Contact:_____
Address: _____Phone: _____
_____Fax:
Description and date of project: _____
_____
Bonding company: _____
Name of general contractor: _____

Reference: _____Contact: _____
Address: _____Phone: _____
_____Fax: _____
Description and date of project: _____
_____
Bonding company: _____
Name of general contractor: _____

RELEVANT PREVIOUS EXPERIENCE FORM
INLAID THERMOPLASTIC ASPHALT PAVEMENT MARKING SUBCONTRACTOR

Bidder's Name: _____

Project: Brewer's Corner and Vicinity Pedestrian Access &Traffic Management Improvement Project, Quincy, Massachusetts

Bidder must provide references for:

Relevant completed projects within the past three (3) years. Attach additional pages if necessary.)

Reference: _____Contact: _____
Address: _____Phone: _____
_____ _____Fax: _____
Description and date of project: _____
_____
Bonding company:_____
Name of general contractor: _____

Reference: _____Contact: _____
Address: _____Phone: _____
_____Fax: _____
Description and date of project: _____
_____
Bonding company: _____
Name of general contractor: _____

Reference: _____Contact:_____
Address: _____Phone: _____
_____Fax:
Description and date of project: _____
_____
Bonding company: _____
Name of general contractor: _____

Reference: _____Contact: _____
Address: _____Phone: _____
_____Fax: _____
Description and date of project: _____
_____
Bonding company: _____
Name of general contractor: _____

CITY OF QUINCY
DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

AGREEMENT FOR
BREWER'S CORNER AND VICINITY PEDESTRIAN ACCESS & TRAFFIC MANAGEMENT IMPROVEMENT PROJECT

THIS AGREEMENT made and entered into this _____ day of _____, 2011 by and between _____, a corporation duly organized by law and having a usual place of business at _____, hereinafter called "CONTRACTOR", and the CITY OF QUINCY , a municipal corporation duly established by law and located in County, Commonwealth of Massachusetts, acting by and through its Planning Director, hereinafter called "CITY", WITNESSETH: That

WHEREAS, the CITY issued its Invitation for Bids for the BREWER'S CORNER AND VICINITY PEDESTRIAN ACCESS & TRAFFIC MANAGEMENT IMPROVEMENT PROJECT, the Department of Planning and Community Development in the CITY, to be designated by the Planning Director; and

WHEREAS, the CONTRACTOR did Bid and offer to furnish and install the work for the BREWER'S CORNER AND VICINITY PEDESTRIAN ACCESS & TRAFFIC MANAGEMENT IMPROVEMENT PROJECT in the CITY, and; "The work to be done under this Contract consists of furnishing all necessary labor, materials and equipment required for the installation of an traffic control signal at the intersection Granite Street, Copeland Street, Water Street and Garfield Street (commonly referred to as Brewer's Corner) in Quincy, MA. The project will include other improvements in accordance with the Plans and these Special Provisions.

Included in the work are unclassified excavation, drainage modifications/adjustments, installation of sidewalks and handicap ramps, installation of vertical granite curb, traffic signs and pavement markings, installation of a new closed-loop traffic signal system, traffic control management during construction, and other street improvements in accordance with the Plans and these Technical Specifications.

The project also includes significant amount of Contractor project management responsibilities including record keeping, grant administration, progress tracking, and communication with the City. Bidders should make specific review of these DOE and HUD provisions.

All work done under this Contract shall be in conformance with the Massachusetts Department of Transportation - Highway Division's (Formally Massachusetts Highway Department) STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES dated 1988, the SUPPLEMENTAL SPECIFICATIONS dated February 25, 2010, the STANDARD SPECIAL PROVISIONS dated August 27, 2010, the 2003 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, the 2010 CONSTRUCTION STANDARD DETAILS, the 1990 STANDARD DRAWING FOR SIGNS AND SUPPORTS, the 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, THE AMERICAN STANDARD NURSERY STOCK (ANSI Z60.1-1986) the PLANS and these TECHNICAL SPECIFICATIONS.

In addition, work shall conform to the City of Quincy Standards. In case of discrepancy between Massachusetts Department of Transportation - Highway Division (MassDOT) Standard Specifications and the City of Quincy Standards, the latter will govern. In instances where the Standard Specifications make references to the Massachusetts Highway Department (MassDOT or MassDOT), those references shall be replaced with "City of Quincy".

WHEREAS, the CITY has accepted the CONTRACTOR'S Bid, subject to the conditions and agreements herein contained;

NOW, THEREFORE, in consideration of the mutual agreements of the parties hereinafter set forth, and the price to be paid by the CITY to the CONTRACTOR for the Work to be done under this Agreement, the parties agree as follows:

-1-

The CONTRACTOR agrees that it will furnish and install BREWER'S CORNER AND VICINITY PEDESTRIAN ACCESS & TRAFFIC MANAGEMENT IMPROVEMENT PROJECT, as exhibited in the published Specifications and will provide all necessary materials, supplies, equipment, tools, labor and other services to complete BREWER'S CORNER AND VICINITY PEDESTRIAN ACCESS & TRAFFIC MANAGEMENT IMPROVEMENT PROJECT in the CITY, to be designated by the Planning Director during the period commencing upon execution hereof and aligning with the below listed Phase schedule, in strict accordance with the Specifications, and will perform such work in a good workmanlike manner. Liquidated damages specified in this Contract are $1,200.00 per day for each calendar day beyond the contract completion date that work remains uncompleted.

Construction of the project shall occur in two phases. BIDDERS shall make all appropriate accommodations to include the impact of this bifurcated project schedule into their Bid Prices. The scope of work and schedule for each phase shall be as outlined below;

Phase 1

Schedule: Shall commence no later than May 1, 2011. Phase 1 shall be completed by August 1, 2011.

Scope of Work:

- Mobilization and Demobilization necessary for the execution of Phase 1.
- Procurement and furnishing of all LED traffic signal equipment (including loop detectors).
- Installation of all traffic signals and control equipment, except for loop detectors. The Contractor shall set the traffic signals in the timer mode, with timing sequence as noted on the Plans.
- All drainage system improvements.
- All sanitary system improvements.
- Geometric improvements at the Water Street/Copeland Street/Granit Street/Garfield Street and the at the Garfield Street/Arthur Street/Smith Street/Prout Street intersections.
- Construction of all sidewalk improvements including installation of structural soil mix within the treeways.
- Installation of signage.
- Construction of all Handicap Accessibility improvements.
- Providing temporary pavement markings as necessary for the proper flow and safety of traffic during Phase 1 and between Phase 1 and Phase 2.
- Providing temporary crosswalks markings.
- All temporary traffic controls and police details necessary for execution of Phase 1.

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Phase 2:

Schedule: Shall commence no later than April 1, 2012. Phase 2 shall be substantially completed by June 1, 2012 and have achieved final completion by July 1, 2012.

Scope of Work:

- Mobilization and Demobilization necessary for the execution of Phase 2.
- Milling of existing asphalt.
- Installation of loop detectors.
- Adjustment to grade of all castings.
- Pavement resurfacing.
- Permanent pavement markings.
- Installation of inlaid crosswalks.
- Installation of treeways (geotextile fabric, sand bedding, edging, porous pavers, trees and mulch).
- Installation of site amenities (planters, benches, trash receptacles).
- All temporary traffic controls and police details necessary for execution of Phase 2.

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-2-

The CONTRACTOR will commence delivery as described in the CONTRACT DOCUMENTS within thirty (30) calendar days after the date of the CONTRACT execution and will complete all deliveries within the time frame provided by the OWNER. The CONTRACTOR agrees to deliver all labor, materials and equipment as described in the CONTRACT DOCUMENTS and comply with the terms therein for those prices listed on the Bid Form, or as negotiated with the OWNER.

ADDENDA:

No._____, dated _____, 201_____ .
No._____, dated _____, 201_____ .

-3-

Total payment under this Agreement shall not exceed the sum of _____ ($.00) DOLLARS. The OWNER will pay the CONTRACTOR in the manner and at such times as set forth in the Technical Specifications such amount as required by the CONTRACT DOCUMENTS.

-4-

The Work to be done under this Agreement, including furnishing of materials, equipment, tools, appliances, etc. necessary in connection therewith must, in all respects, notwithstanding any provision herein to the contrary or inconsistent therewith, meet with the approval of the said Planning Director.

-5-

The CITY, in consideration of the above agreements on the part of the CONTRACTOR to be performed, agrees to pay to the CONTRACTOR the price set forth in Paragraph No. 3 for all work performed and materials, equipment, tools, appliances, etc. furnished hereunder. Payment shall be made on the twentieth day of the month for all work performed and materials, equipment, tools, appliances, etc. furnished are filed in the Department of Planning And Community Development on or before the first day of the month in which payment is to be made. Any payment under this Agreement shall not constitute or be deemed a waiver, relinquishment, release or abandonment of any claim which the CITY may have against the CONTRACTOR for breach of this Agreement.

-6-

The said CONTRACTOR agrees that before commencing any Work to be done under this Agreement, it shall provide, at its own cost and expense, insurance for the payment of compensation and the furnishing of other benefits under the provisions of General Laws, Chapter 152, and amendments

thereto, to cover all employees to be employed by the CONTRACTOR in connection with the Work to be done under this Agreement; and the said CONTRACTOR agrees that it shall continue in force and effect said policy of insurance during the period covered by the Agreement. Failure to provide and continue in force, said insurance shall be deemed a material breach of this Agreement and shall operate, without notice of any kind to the said CONTRACTOR, as an immediate termination of this Agreement. In the event that the CITY should be obliged or required to pay compensation or furnish benefits to any of the said CONTRACTOR'S employees, in accordance with the provisions of General Laws, Chapter 152, and amendments thereto, the said CONTRACTOR agrees that it will reimburse and indemnify the said CITY from any payments it may be obliged or required to make under the provisions of General Laws, Chapter 152, and amendments thereto.

-7-

It is further agreed by the CONTRACTOR that, in the event the CITY is sued in a court of law or equity, or demand is made upon the CITY for payment of any damages arising out of the CONTRACTOR'S performance or non-performance of this Contract, then the CONTRACTOR, without reservation, shall indemnify and hold harmless the CITY against any and all claims arising out of the CONTRACTOR'S performance or non-performance of the Agreement.

-8-

This Contract is subject to all laws of the Commonwealth of Massachusetts, federal, state and local, which are applicable to this Contract, and it is presumed that the CONTRACTOR is cognizant thereof.

-9-

The CONTRACTOR shall give its personal attention constantly to the faithful performance of the services to be performed and shall keep the same under its personal control and shall not assign nor sublet the service or any part thereof without the previous written consent of the CITY and shall not, either legally or equitably, assign any of the monies payable under this Agreement or its claim thereto unless by and with the written consent of the CITY.

-10-

It is further agreed that the CITY may terminate this Agreement at any time, with or without cause, upon thirty (30) days' written notice to the other party, sent by certified mail, to the usual place of business of the other party.

-11-

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

-12-

The CONTRACTOR certifies that any and all municipal fees, including real estate taxes, due and owing to the CITY have been paid in full.

-13-

The CONTRACTOR agrees that it will be responsible for any damage, as determined by the Commissioner of Public Works, caused by the CONTRACTOR, its sub-contractors, agents, servants, employees or any independent contractor hired by the CONTRACTOR to perform any of the Work under this Contract, to the streets, ways, sidewalks, and vegetation or any other property of the CITY as a result of, or in conjunction with, the Work performed under this Contract, whether caused by actual Work or by

the use of any equipment in connection with said Work. The CONTRACTOR agrees that, upon notice of such damage by the CITY, the CONTRACTOR shall repair (or replaced if required) to the satisfaction of the CITY, said streets, ways, sidewalks, and vegetation or any other property of the CITY, to which such damage has been caused prior to the completion of this Contract.

-14-

The fair share construction goals for minority enterprise (MBE) and women's business enterprise (WBE) participation for this Contract is a minimum of ten percent (10%) MBE participation and five percent (5%) WBE participation by state certified MBEs and WBEs,. The CONTRACTOR shall take all affirmative steps necessary to achieve this goal and shall provide reports documenting the portion of Contract and subcontract dollars paid to minority and women-owned businesses, and its efforts to achieve the goals, with each invoice submitted or at such greater intervals as specified by the CITY. The CONTRACTOR shall require similar reports from its subcontractors.

-15-

The CONTRACTOR shall not discriminate against or exclude any person from participation herein on grounds of race, religion, color, sex, age, or national origin; and that it shall take affirmative actions to insure that applicants are employed, and that employees are treated during their employment, without regard to race, religion, color, sex, age, handicapped status, or national origin.

-16-

The CONTRACTOR shall not participate in or cooperate with an international boycott, as defined in Section 999 (b)(3) and (4) of the Internal Revenue code 1986, as amended, or engage in conduct declared to be unlawful by Section 2 of Chapter 151 E of the Massachusetts General Laws.

IN WITNESS WHEREOF, the said _____, and the said CITY OF QUINCY have hereto and to a duplicate and triplicate hereof caused their corporate seals to be affixed, and these presents, in quintuplicate, to be signed in their name and behalf by their duly authorized officers the day and year first above written.

APPROVED

Thomas P. Koch
Mayor

_____
Dennis E. Harrington
Planning Director

_____
Director of Municipal Finance

City Solicitor

_____
Purchasing Agent

CONTRACTOR

_____
Federal I.D. or Social Security No.

_____
Vendors Signature Contract #:

P.O. #: _____

Code #:

CONSTRUCTION PERFORMANCE BOND

NOTE: This form may be substituted for the standard forms issued by bonding company

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

CONTRACTOR (Name and Address):

SURETY (Name and Principal Place of Business):

OWNER (Name and Address):

CONSTRUCTION CONTRACT
Date:
Amount:
Description (Name and Location):

BOND
Date (Not earlier than Construction Contract Date):
Amount:
Modifications to this Bond Form:

CONTRACTOR AS PRINCIPAL
Company: (Corp. Seal)

Signature:_____
Name and Title:

SURETY
Company: (Corp. Seal)

Signature:_____
Name and Title:

CONTRACTOR AS PRINCIPAL
Company: (Corp. Seal)

Signature:_____
Name and Title:

SURETY
Company: (Corp. Seal)

Signature:_____
Name and Title:

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

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except to participate in conferences as provided in Subparagraph 3.1.

3. If there is no Owner Default, the Surety's obligation under this Bond shall arise after:
3.1. The Owner has notified the Contractor and the Surety at its address described in Paragraph 10 below, that the Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Construction Contract. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default; and
3.2. The Owner has declared a Contractor Default and formally terminated the Contractor's right to complete the contract. Such Contractor Default shall not be declared earlier than twenty days after the Contractor and the Surety have received notice as provided in Subparagraph 3.1; and
3.3. The Owner has agreed to pay the Balance of the Contract Price to the Surety in accordance with the terms of the Construction Contract or to a contractor selected to perform the Construction Contract in accordance with the terms of the contract with the Owner.

4. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:
4.1. Arrange for the Contractor, with consent of the Owner, to perform and complete the Construction Contract; or
4.2. Undertake to perform and complete the Construction Contract itself, through its agents or through independent contractors; or
4.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and the contract or selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the owner the amount of damages as described in paragraph 6 in excess of the Balance of the Contra t Price incurred by the Owner resulting from the Contractor's default; or
4.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances: 1. After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, tender payment therefore to the Owner; or
2. Deny liability in whole or in part and notify the Owner citing reasons therefore.

5. If the Surety does not proceed as provided in Paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Subparagraph 4.4, and the Owner refuses the payment tendered or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

6. After the Owner has terminated the Contractor's right to complete the Construction Contract, and if the Surety elects to act under Subparagraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contract or under the Construction Contract, and the responsibilities of the owner to the Surety shall not be greater than those of the Owner under the Construction Contract. To the limit of the amount of this Bond, but subject to commitment by the Owner for the Balance of the Contract Price to mitigation of costs and damages on the Construction Contract, the Surety is obligated without duplication for:
6.1. The responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
6.2. Additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 4; and
6.3. Liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

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

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

9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after Contractor Default or within two years after Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

10. Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page.

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

12. DEFINITIONS

12.1. Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.
12.2. Construction Contract: The agreement between the Owner and the Contractor identified on the signature page, including all Contract Documents and changes thereto.
12.3. Contractor Default: Failure of the Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Construction Contract.
12.4. Owner Default: Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Construction Contract or to perform and complete or comply with the other terms thereof.

CONSTRUCTION PAYMENT BOND

NOTE: This form may be substituted for the standard forms issued by bonding company

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

CONTRACTOR (Name and Address):

SURETY (Name and Principal Place of Business):

OWNER (Name and Address):

CONSTRUCTION CONTRACT
Date:
Amount:
Description (Name and Location):

BOND
Date (Not earlier than Construction Contract Date):
Amount:
Modifications to this Bond Form:

CONTRACTOR AS PRINCIPAL
Company: (Corp. Seal)

Signature:_____
Name and Title:

SURETY
Company: (Corp. Seal)

Signature:_____
Name and Title:

CONTRACTOR AS PRINCIPAL
Company: (Corp. Seal)

Signature:_____
Name and Title:

SURETY
Company: (Corp. Seal)

Signature:_____
Name and Title:

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

2. With respect to the Owner, this obligation shall be null and void if the Contractor:

2.2. Defends, indemnifies and holds harmless the Owner from all claims, demands, liens or suits by any person or entity who furnished labor, materials or equipment for use in the performance of the Construction Contract, provided the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 12) of any claims, demands, liens or suits and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety, and provided there is no Owner Default.

3. With respect to Claimants, this obligation shall be null and void if the Contractor promptly makes payment, directly or indirectly, for all sums due.

4. The Surety shall have no obligation to Claimants under this Bond until;

4.1. Claimants who are employed by or have a direct contract with the Contractor have given notice to the Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to the Owner, starting that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.

4.2. Claimants who do not have a direct contract with the Contractor:

1. Have furnished written notice to the Contractor and sent a copy, or notice thereof, to the Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim and the name of the party to whom the materials were furnished or supplied or from whom the labor was done or performed; and

2. Have either received a rejection in whole or in part from the Contractor, or not received within 30 days of furnishing the above notice any communication from the Contractor by which the Contractor has indicated the claim will be paid directly or indirectly; and

3. Not having been paid within the above 30 days, have sent a written notice to the surety (at the address described in paragraph 12) and sent a copy, or notice thereof, to the Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the Contractor.

5. If a notice required by Paragraph 4 is given by the Owner to the Contractor or to the Surety, that is sufficient compliance.

6. When the Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:

6.1. Send an answer to the Claimant, with a copy to the Owner, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.

6.2. Pay or arrange for payment of any undisputed amounts.

7. The Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

8. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction Performance Bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and the Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

9. The Surety shall not be liable to the Owner, Claimants or other for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

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

11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the work or part of the work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Subparagraph 4.1 or Clause 4.2 (iii), or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page. Actual receipt of notice by Surety, the Owner or the Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

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

14. Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

15. DEFINITIONS

15.1. Claimant: An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

15.2. Construction Contract: The agreement between the Owner and the Contractor identified on the signature page, including all Contract Documents and changes thereto.

15.3. Owner Default: Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Construction Contract or to perform and complete or comply with the other terms thereof.

NOTICE OF AWARD

Dated _____, 2011

TO: _____(BIDDER)

ADDRESS: _____

_____

_____

OWNER'S PROJECT NO. _____

PROJECT: BREWER'S CORNER AND VICINITY PEDESTRIAN ACCESS & TRAFFIC MANAGEMENT IMPROVEMENT PROJECT

OWNER'S CONTRACT NO. _____

CONTRACT FOR CITY OF QUINCY, MASSACHUSETTS DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT: BREWER'S CORNER AND VICINITY PEDESTRIAN ACCESS & TRAFFIC MANAGEMENT IMPROVEMENT PROJECT

You are notified that your Bid dated _____ 2011, for the above Contract has been considered. You are the apparent successful bidder and have been awarded a contract for

_____

_____

(Indicate total Work, alternates or sections of Work awarded)

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

Six (6) copies of each of the proposed Contract Documents accompany this Notice of Award.

You must comply with the following conditions precedent within fifteen days of the date of this Notice of Award, that is by _____, 2011.

1. You must deliver to the OWNER six fully executed counterparts of the Agreement including all the Contract Documents. Each set of the Contract Documents must bear your signature on the cover page.

2. You must deliver with the executed Agreement the Contract Security (Bonds) as specified in the Instructions to Bidders, General Conditions (paragraph 5.01) and Supplementary Conditions (paragraph SC-5.01).

3. (List other conditions precedent).

_____

_____

_____

_____

Failure to comply with these conditions within the time specified will entitle OWNER to consider your bid abandoned, to annul this Notice of Award and to declare your Bid Security forfeited.

Within ten days after you comply with those conditions, OWNER will return to you one fully signed counterpart of the Agreement with the Contract Documents attached.

_____
(OWNER)

By _____
(AUTHORIZED SIGNATURE)

_____
(TITLE)

Copy to ENGINEER
(Use Certified Mail,
Return Receipt Requested)

NOTICE TO PROCEED

Dated _____, 2011

TO:_____ (BIDDER)

ADDRESS:_____

OWNER'S PROJECT NO._____

PROJECT: BREWER'S CORNER AND VICINITY PEDESTRIAN ACCESS & TRAFFIC MANAGEMENT IMPROVEMENT PROJECT

OWNER'S CONTRACT NO._____

CONTRACT FOR CITY OF QUINCY, MASSACHUSETTS DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT: BREWER'S CORNER AND VICINITY PEDESTRIAN ACCESS & TRAFFIC MANAGEMENT IMPROVEMENT PROJECT

You are notified that the Contract Time under the above contract will commence to run on _____, 2011. By that date, you are to start performing your obligations under the Contract Documents. In accordance with Article 3 of the Agreement the dates of Substantial Completion and Final Completion are_____, 2011 and _____, 2011, respectively.

Before you may start any Work at the site, paragraph 5.03 of the General Conditions provides that you and Owner must each deliver to the other (with copies to ENGINEER) certificates of insurance which each is required to purchase and maintain in accordance with the Contract Documents.

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

_____

_____

_____
(OWNER)

By _____
(AUTHORIZED SIGNATURE)

_____
(TITLE)

Copy to ENGINEER
(Use Certified Mail,
Return Receipt Requested)

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

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly By

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AMERICAN SOCIETY OF CIVIL ENGINEERS

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Construction Specifications Institute

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These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor Nos. C-520 or C-525 (2002 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the EJCDC Construction Documents, General and Instructions (No. C-001) (2002 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (No. C-800) (2002 Edition).

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GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. *Addenda*--Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

2. *Agreement*--The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.

3. *Application for Payment*--The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Asbestos*--Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

5. *Bid*--The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

6. *Bidder*--The individual or entity who submits a Bid directly to Owner.

7. *Bidding Documents*--The Bidding Requirements and the proposed Contract Documents (including all Addenda).

8. *Bidding Requirements*--The Advertisement or Invitation to Bid, Instructions to Bidders, bid security of acceptable form, if any, and the Bid Form with any supplements.

9. *Change Order*--A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

10. *Claim*--A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

11. *Contract*--The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*-- Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor's submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.

13. *Contract Price*--The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).

14. *Contract Times*--The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any, (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.

15. *Contractor*--The individual or entity with whom Owner has entered into the Agreement.

16. *Cost of the Work*--See Paragraph 11.01.A for definition.

17. *Drawings*--That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.

18. *Effective Date of the Agreement*--The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

19. *Engineer*--The individual or entity named as such in the Agreement.

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20. *Field Order*--A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.

21. *General Requirements*--Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.

22. *Hazardous Environmental Condition*--The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.

23. *Hazardous Waste*--The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

24. *Laws and Regulations; Laws or Regulations*--Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

25. *Liens*--Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

26. *Milestone*--A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*--The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.

28. *Notice to Proceed*--A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.

29. *Owner*--The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.

30. *PCBs*--Polychlorinated biphenyls.

31. *Petroleum*--Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.

32. *Progress Schedule*--A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.

33. *Project*--The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.

34. *Project Manual*--The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

35. *Radioactive Material*--Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

36. *Related Entity* -- An officer, director, partner, employee, agent, consultant, or subcontractor.

37. *Resident Project Representative*--The authorized representative of Engineer who may be assigned to the Site or any part thereof.

38. *Samples*--Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

39. *Schedule of Submittals*--A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.

40. *Schedule of Values*--A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

41. *Shop Drawings*--All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.

42. *Site*--Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.

43. *Specifications*--That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain

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administrative requirements and procedural matters applicable thereto.

44. *Subcontractor*--An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.

45. *Substantial Completion*--The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

46. *Successful Bidder*--The Bidder submitting a responsive Bid to whom Owner makes an award.

47. *Supplementary Conditions*--That part of the Contract Documents which amends or supplements these General Conditions.

48. *Supplier*--A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or any Subcontractor.

49. *Underground Facilities*--All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

50. *Unit Price Work*--Work to be paid for on the basis of unit prices.

51. *Work*--The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

52. *Work Change Directive*--A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 *Terminology*

A. The following words or terms are not defined but, when used in the Bidding Requirements or Contract Documents, have the following meaning.

B. *Intent of Certain Terms or Adjectives*

1. The Contract Documents include the terms "as allowed," "as approved," "as ordered", "as directed" or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action or determination will be solely to evaluate, in general, the Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. *Day*

1. The word "day" means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective*

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:

a. does not conform to the Contract Documents, or

b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents, or

c. has been damaged prior to Engineer's - recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

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E. *Furnish, Install, Perform, Provide*

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, "provide" is implied.

F. Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 - PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.

B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

2.02 *Copies of Documents*

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

2.03 *Commencement of Contract Times; Notice to Proceed*

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

2.04 *Starting the Work*

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

2.05 *Before Starting Construction*

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

1. a preliminary Progress Schedule; indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;

2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 *Preconstruction Conference*

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

2.07 *Initial Acceptance of Schedules*

A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

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1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

A. The Contract Documents are complementary; what is required by one is as binding as if required by all.

B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to Owner.

C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 *Reference Standards*

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

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard, specification, manual or code, or any instruction of a Supplier shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, or Engineer, or any of, their Related Entities, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. Reporting Discrepancies

1. *Contractor's Review of Contract Documents Before Starting Work*: Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor may discover and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.

2. *Contractor's Review of Contract Documents During Performance of Work*: If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor knew or reasonably should have known thereof.

B. Resolving Discrepancies

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

a. the provisions of any standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work

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(unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.

B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

1. A Field Order;

2. Engineer's approval of a Shop Drawing or Sample; (Subject to the provisions of Paragraph 6.17.D.3); or

3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

A. Contractor and any Subcontractor or Supplier or other individual or entity performing or furnishing all of the Work under a direct or indirect contract with Contractor, shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or Engineer's consultants, including electronic media editions; or

2. reuse any of such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaption by Engineer.

B. The prohibition of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 *Electronic Data*

A. Copies of data furnished by Owner or Engineer to Contractor or Contractor to Owner or Engineer that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party..

C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

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

4.01 *Availability of Lands*

A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

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4.02 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports of explorations and tests of subsurface conditions at or contiguous to the Site that Engineer has used in preparing the Contract Documents; and

2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that Engineer has used in preparing the Contract Documents.

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:

1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or

2. is of such a nature as to require a change in the Contract Documents; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

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

B. *Engineer's Review*: After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner's obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer's findings and conclusions.

C. Possible Price and Times Adjustments

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and

b. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:

a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or

b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or

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c. Contractor failed to give the written notice as required by Paragraph 4.03.A.

3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, Owner and Engineer, and any of their Related Entities shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data; and

2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:

a. reviewing and checking all such information and data,

b. locating all Underground Facilities shown or indicated in the Contract Documents,

c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction, and

d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 *Reference Points*

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

4.06 *Hazardous Environmental Condition at Site*

A. *Reports and Drawings:* Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the Engineer in the preparation of the Contract Documents.

B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:

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1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.

D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any.

E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered to Contractor written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.

F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.

G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06. G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 - BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified

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in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.

B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent must be accompanied by a certified copy of the agent's authority to act.

C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

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

5.03 *Certificates of Insurance*

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

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

5.04 *Contractor's Liability Insurance*

A. Contractor shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;

2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;

3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;

4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:

a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or

b. by any other person for any other reason;

5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and

6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

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

1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insured (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, partners, employees, agents, consultants and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

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3. include completed operations insurance;

4. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;

5. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);

6. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and

7. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment.

a. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

5.05 *Owner's Liability Insurance*

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

5.06 *Property Insurance*

A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;

2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, (other than caused by flood) and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;

3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;

5. allow for partial utilization of the Work by Owner;

6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.

B. Owner shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.

C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.

D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any

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deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

5.07 *Waiver of Rights*

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

B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them for:

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.

C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order .

B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

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

A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract

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Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

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

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances. The superintendent will be Contractor's representative at the Site and shall have authority to act on behalf of Contractor. All communications given to or received from the superintendent shall be binding on Contractor.

6.02 *Labor; Working Hours*

A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 *Services, Materials, and Equipment*

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 *Progress Schedule*

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.

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1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 *Substitutes and "Or-Equals"*

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.

1. *"Or-Equal" Items:* If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment Engineer determines that:

1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole,

3) it has a proven record of performance and availability of responsive service; and

b. Contractor certifies that, if approved and incorporated into the Work:

1) there will be no increase in cost to the Owner or increase in Contract Times, and

2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. Substitute Items

a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.

b. Contractor shall submit sufficient information as provided below to allow Engineer to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.

c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented in the General Requirements and as Engineer may decide is appropriate under the circumstances.

d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:

1) shall certify that the proposed substitute item will:

a) perform adequately the functions and achieve the results called for by the general design,

b) be similar in substance to that specified, and

c) be suited to the same use as that specified;

2) will state:

a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time;

b) whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and

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c) whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;

3) will identify:

a) all variations of the proposed substitute item from that specified , and

b) available engineering, sales, maintenance, repair, and replacement services;

4) and shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change,

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

C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.

D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

E. *Engineer's Cost Reimbursement*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B Whether or not Engineer approves a substitute item so proposed or submitted by Contractor, Contractor shall reimburse Owner for the charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

F. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.

B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued . No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.

C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity, nor

2. shall anything in the Contract Documents create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual

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or entity except as may otherwise be required by Laws and Regulations.

D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.

E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.

F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, and Engineer,, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of Owner or Engineer its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 *Permits*

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

6.09 *Laws and Regulations*

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

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6.10 *Taxes*

A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

6.11 *Use of Site and Other Areas*

A. Limitation on Use of Site and Other Areas

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

2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

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

6.13 *Safety and Protection*

A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

C. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Draw-

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ings or Specifications or to the acts or omissions of Owner or Engineer or , or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

D. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

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

6.15 *Hazard Communication Programs*

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

6.16 *Emergencies*

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

6.17 *Shop Drawings and Samples*

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

1. Shop Drawings

a. Submit number of copies specified in the General Requirements.

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

2. *Samples:* Contractor shall also submit Samples to Engineer for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals.

a. Submit number of Samples specified in the Specifications.

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

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

C. Submittal Procedures

1. Before submitting each Shop Drawing or Sample, Contractor shall have determined and verified:

a. all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

b. the suitability of all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;

c. all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto; and

d. shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents

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with respect to Contractor's review and approval of that submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations, that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawing's or Sample Submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. *Engineer's Review*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

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

E. *Resubmittal Procedures*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 *Continuing the Work*

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

6.19 *Contractor's General Warranty and Guarantee*

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its Related Entities shall be entitled to rely on representation of Contractor's warranty and guarantee.

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

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

2. normal wear and tear under normal usage.

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

1. observations by Engineer;

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

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

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

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

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

7. any correction of defective Work by Owner.

6.20 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or

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arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .

B. In any and all claims against Owner or Engineer or any of their respective consultants, agents, officers, directors, partners, or employees by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

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

1. the preparation or approval of, or the failure to prepare or approve, maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or

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

6.21 *Delegation of Professional Design Services*

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

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

C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.

E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 - OTHER WORK AT THE SITE

7.01 *Related Work at Site*

A. Owner may perform other work related to the Project at the Site with Owner's employees, or via other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:

1. written notice thereof will be given to Contractor prior to starting any such other work; and

2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.

B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and shall properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and

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properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;

2. the specific matters to be covered by such authority and responsibility will be itemized; and

3. the extent of such authority and responsibilities will be provided.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 *Legal Relationships*

A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.

B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's actions or inactions.

C. Contractor shall be liable to Owner and any other contractor for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's action or inactions.

ARTICLE 8 - OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

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

8.02 *Replacement of Engineer*

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

8.03 *Furnish Data*

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

8.04 *Pay When Due*

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

8.05 *Lands and Easements; Reports and Tests*

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

8.06 *Insurance*

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

8.07 *Change Orders*

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

8.08 *Inspections, Tests, and Approvals*

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

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8.09 *Limitations on Owner's Responsibilities*

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

8.10 *Undisclosed Hazardous Environmental Condition*

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

8.11 *Evidence of Financial Arrangements*

A. If and to the extent Owner has agreed to furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents, Owner's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents and will not be changed without written consent of Owner and Engineer.

9.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

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

9.04 *Authorized Variations in Work*

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

9.05 *Rejecting Defective Work*

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

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9.06 *Shop Drawings, Change Orders and Payments*

A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.

B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.

C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.

D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

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

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

A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question

B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believe that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.

C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.

D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to, the Resident Project Representative, if any, and assistants, if any.

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall

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promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

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

10.03 *Execution of Change Orders*

A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:

1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;

2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and

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

10.04 *Notification to Surety*

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

10.05 *Claims*

A. *Engineer's Decision Required*: All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.

B. *Notice:* Written notice stating the general nature of each Claim, shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).

C. *Engineer's Action*: Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:

1. deny the Claim in whole or in part,

2. approve the Claim, or

3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.

D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.

E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.

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F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

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

11.01 *Cost of the Work*

A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include any of the costs itemized in Paragraph 11.01.B.

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time at the Site. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.

4. Costs of special consultants (including but not limited to Engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, imposed by Laws and Regulations.

e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have

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resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, expresses, and similar petty cash items in connection with the Work.

i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

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

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A and 11.01.B.

C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.

D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 *Allowances*

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. *Cash Allowances*

1. Contractor agrees that:

a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

b. Contractor's costs for unloading and handling on the Site, labor, installation , overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. Contingency Allowance

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 *Unit Price Work*

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

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B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:

1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

2. there is no corresponding adjustment with respect any other item of Work; and

3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

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

12.01 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).

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

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;

b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;

c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraph 12.01.C.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;

e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and

f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted

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by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 *Delays*

A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times , or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

C If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.

D. Owner, Engineer and the Related Entities of each of them shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of Engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

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

13.01 *Notice of Defects*

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

13.02 *Access to Work*

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

13.03 *Tests and Inspections*

A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:

1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;

2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in said Paragraph 13.04.C; and

3. as otherwise specifically provided in the Contract Documents.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to

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be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.

E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, it must, if requested by Engineer, be uncovered for observation.

F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.

B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.

C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.

D. If, the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

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

13.06 *Correction or Removal of Defective Work*

A. Promptly after receipt of notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 *Correction Period*

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. repair such defective land or areas; or

2. correct such defective Work; or

3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and

4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.

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B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications .

D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

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

13.09 *Owner May Correct Defective Work*

A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.

C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

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

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress

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payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 *Progress Payments*

A. Applications for Payments

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. *Review of Applications*

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

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations on the Site of the executed Work as an experienced and qualified design professional and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

a. the Work has progressed to the point indicated;

b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, 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 under Paragraph 9.07, and to any other qualifications stated in the recommendation); and

c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or

b. that there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:

a. to supervise, direct, or control the Work, or

b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or

c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or

d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or

e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent

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inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;

b. the Contract Price has been reduced by Change Orders;

c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or

d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. *Payment Becomes Due*

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

D. *Reduction in Payment*

1. Owner may refuse to make payment of the full amount recommended by Engineer because:

a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;

b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;

c. there are other items entitling Owner to a set-off against the amount recommended; or

d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.

2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor corrects to Owner's satisfaction the reasons for such action.

3. If it is subsequently determined that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1.

14.03 *Contractor's Warranty of Title*

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

14.04 *Substantial Completion*

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.

B. Promptly after Contractor's notification, , Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will within 14 days after submission of the tentative certificate to Owner notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will within said 14 days execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial

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Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.

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

14.05 *Partial Utilization*

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

1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor will certify to Owner and Engineer that such part of the Work is substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

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

14.07 *Final Payment*

A. Application for Payment

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:

a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.7;

b. consent of the surety, if any, to final payment;

c. a list of all Claims against Owner that Contractor believes are unsettled; and

d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner or Owner's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. *Engineer's Review of Application and Acceptance*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations

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under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due

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

14.08 *Final Completion Delayed*

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

14.09 *Waiver of Claims*

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and

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

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

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

15.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);

2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;

3. Contractor's disregard of the authority of Engineer; or

4. Contractor's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:

1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion),

2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and

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3. complete the Work as Owner may deem expedient.

C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph Owner shall not be required to obtain the lowest price for the Work performed.

D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.

E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.

F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B, and 15.02.C.

15.03 *Owner May Terminate For Convenience*

A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

4. reasonable expenses directly attributable to termination.

B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *Contractor May Stop Work or Terminate*

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

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

ARTICLE 16 - DISPUTE RESOLUTION

16.01 *Methods and Procedures*

A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be

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governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

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

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

1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions, or

2. agrees with the other party to submit the Claim to another dispute resolution process, or

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

ARTICLE 17 - MISCELLANEOUS

17.01 *Giving Notice*

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

1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or

2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 *Computation of Times*

A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 *Cumulative Remedies*

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

17.04 *Survival of Obligations*

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

17.05 *Controlling Law*

A. This Contract is to be governed by the law of the state in which the Project is located.

17.06 *Headings*

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

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Chapter 12.28

PUBLIC CONSTRUCTION PROJECTS

Sections:

12.28.010 Employment of city residents—Required—Ratio.
12.28.020 Employment of city residents—Required—Posting of advertisements.
12.28.030 Employment of city residents—Resident defined.
12.28.040 Requirements—Prevailing wages.
12.28.050 Requirements—Hiring of minorities and women.
12.28.060 Requirements—Employee information—Provided to equal opportunity administrator.
12.28.070 Enforcement of chapter provisions—Violations—Penalties.
12.28.080 Severability.

12.28.010 Employment of city residents—Required—Ratio.

On any construction project funded in whole or in part by city funds, funds from a federal grant or loan, or city-approved M.I.F.A. applications, or projects for which the city administers the construction contract, and when a project has a projected cost of more than two hundred fifty thousand dollars, residents of Quincy who are qualified to perform the work to which the employment relates shall be given preference in hiring on a one-of-every-three ratio, after the employer's foreman or supervisor and two key employees have been employed for a one-week payroll period. (Ord. 1989-532 (part): prior code Ch. 13, § 54 (part))

12.28.020 Employment of city residents—Required—Posting of advertisements.

Prior to entering into a construction agreement involving more than two hundred fifty thousand dollars, the owner, developer or contractor shall place a reasonable size advertisement, at least three inches by five inches in size, at least twice, in at least one newspaper having a local distribution, on a craft-by-craft basis, indicating that bids are sought and that qualified residents of Quincy shall be given preference consideration in hiring on a three-to-one ratio. (Ord. 1989-532 (part): prior code Ch. 13, § 54 (part))

12.28.030 Employment of city residents—Resident defined.

For purposes of this chapter, a resident of Quincy means an individual who is domiciled in the city. Individuals who temporarily live in the city during the term of the project shall not be considered residents of Quincy for the purposes of this chapter. (Ord. 1990-245 (part): Ord. 1989-532 (part): prior code Ch. 13, § 54 (part))

12.28.040 Requirements—Prevailing wages.

In any project with a projected cost of more than two hundred fifty thousand dollars, companies receiving public assistance through the financing agencies listed in Section 12.28.010 should be in concurrence with the prevailing wages in the area, including wages in the Davis-Bacon Act. No revenue bond applications are to be approved unless the applicant agrees to all of the aforementioned conditions. (Ord. 1989-532 (part): prior code Ch. 13, § 54 (part))

December 19, 1988

CITY OF QUINCY

IN COUNCIL

RECEIVED

OCT 17 1989

QUINCY BUILDING DEPT.

ORDER NO. 532

ORDERED:

Be it ordained by the City Council of the City of Quincy, that the revised Ordinances of the City of Quincy, 1976, are further amended in Chapter 13 Offenses - Miscellaneous, by adding the following new section:

SECTION 54 - RESIDENCY FOR CITY SUPPORTED CONSTRUCTION PROJECTS:

On any construction project funded in whole or in part by City funds, or funds from a federal grant or loan, or City-approved M.I.F.A. applications, or projects for which the City administers the construction contract, and when a project has a projected cost of more than $250,000.00 residents of Quincy who are qualified to perform the work to which the employment relates shall be given preference in hiring on a 1-of-every-3 ratio, after the employer's foreman or supervisor and two key employees have been employed for a one-week payroll period.

In any project with a projected cost of more than $250,000.00, companies receiving public assistance through these financing agencies should be in concurrence with the prevailing wages in the area, including wages in the Davis-Bacon Act. No revenue bond applications are to be approved unless the applicant agrees to all of the aforementioned conditions.

Prior to entering into a construction agreement involving more than $250,000.00 the owner, developer or contractor shall place a reasonable size advertisement, at least 3" x 5" in size, at least twice, in at least one newspaper having a local distribution, on a craft-by-craft basis, indicating that bids are sought and the qualified residents of Quincy shall be given preference consideration in hiring on a 3-to-1 ratio.

Minorities and women shall additionally be accorded preference for their hiring, as provided for in the federal, state or municipal laws, shall either be included or the same will be deemed included in all constructi agreements.

The Quincy Equal Opportunity Administrator will be furnished copies of names and home addresses of employees, upon request, and will be furnished such other proof compliance as said Director may request, upon written request for the same, within seven days of such request.

In the event that any section of this ordinance is deemed illegal, unenforceable, or unconstitutional, then the remaining sections shall remain in full force and effect.

PASSED TO BE ORDAINED JUNE 5, 1989

ATTEST

CLERK OF COUNCIL

APPROVED

JUN 12 1989

MAYOR

YEAS Cahill, Cheney, Chretien, DeCristofaro, McGrath, Nutley, Phelan, Sheets, Toland

NAYS Cahill, Cheney, Chretien, DeCristofaro, McGrath, Nutley, Phelan, Sheets, Toland

INTRODUCED BY

CITY OF QUINCY

IN COUNCIL

October 15, 1990

ORDER NO. 245

ORDERED: Insert the following additional subsections in Chapter 33, Sec. 54) (Replaces page two of Council Order #532 of 1989)

6. Any bidder for work covered by this section must notify the Quincy Equal Opportunity Administrator of the names and addresses of any individuals currently employed by the bidder who are not residents of Quincy and who the bidder intends to employ on the project. Such notice shall be in writing at least 48 hours prior to the opening of the bids. Failure to so notify the Administrator shall be deemed an admission by the bidder that the composition of the work force for the project will be in accordance with Section 1 of this ordinance.

7. This ordinance shall be enforced by the Commissioner of Public Works or his designee in conjunction with the Quincy Equal Opportunity Administrator. A $300 fine shall be levied and withheld from the payment of any contractor who violates this ordinance for each day the contract remains in violation.

8. For purposes of this ordinance, a resident of Quincy shall mean an individual who is domiciled in the City of Quincy. Individuals who temporarily live in the City of Quincy during the term of the project shall not be considered residents of Quincy for the purpose of this ordinance.

9. In the event that any section of this ordinance is deemed illegal, unenforceable, or unconstitutional, then the remaining sections shall remain in full force and effect.

PASSED TO BE ORDAINED OCTOBER 15, 1990

ATTEST: John M. Gillis

CLERK OF COUNCIL

APPROVED

OCT 18 1990

James T. Shea

MAYOR

YEAS Cahill, Cheney, Chretien, [illegible]io, Kolson, Nutley, Phelan, Toland

INTRODUCED BY

CITY OF QUINCY

IN COUNCIL

ORDER NO. 264

ORDERED:

This order was returned to the City Council on June 20, 1989, with the Mayor's disapproval with a statement in writing giving his objections to the order. On October 2, 1989 the order was passed to be ordained notwithstanding the veto of the Mayor. Eight voting YES and one voting NO - Councillor Timothy P. Cahill voting in the negative.

ATTEST:

Clerk of Council

YEAS Cahill, Cheney, Chretien, DeCristofaro, McGrath, Nutley, Phelan, Sheets, Toland

NAYS Cahill, Cheney, Chretien, DeCristofaro, McGrath, Nutley, Phelan, Sheets, Toland

SOLICITORS
AUDITORS
ASSESSORS

INTRODUCED BY JAMES A. SHEETS, MAYOR
COUNCILLOR MICHAEL D'AMICO

CITY OF QUINCY
IN COUNCIL

ORDER NO. 97-104 April 7, 1997
ORDERED:

Be it ordained by the City Council of the City of Quincy that the Quincy Municipal Code is hereby amended as follows:

Chapter 12.28 is hereby amended by adding Section 12.28.090 - Apprenticeship Program.

All bidders and all subcontractors under the bidder for projects subject to M.G.L. c.149, section 44A(2) shall, as a condition precedent for bidding substantially agree in writing that they shall comply with the following obligations:

A. The bidder and all subcontractors under the bidder must maintain or participate in a bona fide apprentice training program as defined by M.G.L. c.23, sections 11H and 11I for each apprenticeable trade or occupation represented in their workforce that is approved by the Division of Apprentice Training of the Department of Labor and Industries and must abide by the apprentice to journeymen ratio for each trade prescribed therein in the performance of the contract.

B. All bidders and subcontractors under the bidder who are awarded or who otherwise obtain contracts on projects subject to M.G.L. c.149, section 44A(2) shall comply with this obligation as set forth in paragraph A above for the entire duration of their work on the project, and an officer of each such bidder or subcontractor under the bidder shall certify under oath and in writing on a weekly basis that they are in compliance with such obligation.

C. Any bidder or subcontractor under the bidder who fails to comply with this obligation as set forth in paragraph s above for any period of time shall be subject to one or more of the following sanctions which shall be ordered by the Mayor or his designee:

YEAS Ayers, Cahill, Cheney, D'Amico, Durkin, Harold, Kolson, McDermott, Raymondi
NAYS Ayers, Cahill, Cheney, D'Amico, Durkin, Harold, Kolson, McDermott, Raymondi

INTRODUCED BY JAMES A. SHEETS, MAYOR
COUNCILLOR MICHAEL D'AMICO

CITY OF QUINCY
IN COUNCIL

ORDER NO. 97-104 April 7, 1997
ORDERED:

(1) cessation of work on the project until compliance is obtained; (2) withholding of payment due under any contract or subcontract until compliance is obtained; (3) permanent removal from any further work on the project; (4) liquidated damages payable to the City in the amount of 5% of the dollar value of the contract.

D. In addition to the sanctions outlined in paragraph C above, a general bidder or contractor shall be equally liable for the violations of its subcontractor with the exception of violations arising from work performed pursuant to subcontracts that are subject to M.G.L. c.149, section 44F. Any contractor or subcontractor who has been determined to have violated any of the obligations set forth in paragraphs A and B above shall be barred from performing any work on any future projects for six months for a first violation, for three years for a second violation, and permanently for a third violation.

E. The provisions of this section 12.28.090 shall not apply to construction projects for which the low general bid was less than $100,000 or to work performed pursuant to subcontracts that are subject to M.G.L. c.149, section 44F and that were bid for less than $25,000, or to re-bids for construction projects for which the City receives fewer than three (3) qualified general contract bidders in the original bid.

F. If any provision of this ordinance, or the application of such provision to any person or circumstances, shall be enjoined or held to be invalid, the remaining provisions of this ordinance, or the application of such provisions to persons to circumstances, other than that which is enjoined or held invalid shall not be affected thereby.

PASSED TO BE ORDAINED, MAY 5, 1997

ATTEST: Jacqueline Shea
CLERK OF COUNCIL

APPROVED
MAY - 6 1997
James A. Sheets
MAYOR

YEAS Ayers, Cahill, Cheney, D'Amico, Durkin, Harold, Kolson, McDermott, Raymondi
NAYS Ayers, Cahill, Cheney, D'Amico, Durkin, Harold, Kolson, McDermott, Raymondi

17.36.070 Fencing and screening—Industrial and Business districts—Requirements.

A. Required when—Permitted Types. In an Industrial or Business district, the outdoor storage of goods, products, materials or equipment shall, if visible at normal eye level from any point beyond the boundaries of the premises and less than five hundred feet distant, be screened from such view. Screening, as defined herein, shall be an ornamental lattice, opaque fence, plantings or sight-obscuring screening which shall not be less than six nor more than ten feet high and not less than fifty percent opaque. Plantings shall be at least ten feet in width and contain at least two rows of alternate live deciduous and evergreen trees. Said trees shall not be more than five feet apart, shall have an original planting height of at least six feet, shall be able to attain a height of at least ten feet, and shall be maintained in a healthy growing condition by the property owner. Any existing open storage in any district shall within one year of the effective date of the ordinance codified in this title be properly screened or removed.

B. Adjacent to Residential Districts. Where an Industrial district is located adjacent to a Residence district or a public park or playground and is not separated therefrom by a public way, a compact planting screen as defined in subsection A of this section along the property or lot line adjoining said district boundary shall be provided and maintained by the owners of said premises. Said screening area shall contain no structures or parking or be devoted to any other use or purpose, and shall be maintained in a healthy growing condition by the property owner.

(Prior code Ch. 24, § 84)

17.36.080 Traffic visibility across corners.

In any district, no structure, fence or sign shall be constructed and no vegetation shall be planted or maintained between a plane two and one-half feet above curb level and a plane ten feet above curb level, so as to interfere with traffic visibility across a corner within that part of the lot which is within a triangle formed by the street lines and a third line joining points on the street lot lines twenty-five feet from their intersection. (Ord. 1988-6: prior code Ch. 24, § 85)

17.36.090 Blasting—Permits—Pre-blasting survey—Required—Requirements.

A. Permitted Surveyors. For all permits issued for blasting (rock excavation) in the city, a pre-blast survey must be made by the contractor or by an approved firm in this kind of work and satisfactory to the contractor's insurance company.

B. Requirements.

1. Approval. The pre-blast survey will include a survey of the interior and exterior of existing buildings and stone walls adjacent to the project as specified herein, before any excavation or blasting is done. Written approval must be secured from the fire chief, city engineer and building inspector serving as the committee on blasting.
2. Adjacent Area. The adjacent area requiring the pre-blast survey is specified as all buildings and stone walls within a radius of three hundred fifty feet from said blast.
3. Structural Defects. The survey shall record all visible structural defects such as cracks, settlement and lines out of plumb.

(Ord. 1988-236 (part): prior code Ch. 24, § 87 (part))

17.36.100 Blasting—Pre-blasting survey—Disposition of survey data.

The survey data shall be recorded in a permanent manner in approved hardbound notebooks. The survey data shall include polaroid photographs showing the building constructions surveyed referenced to the notebook pages. Also a tape recording of all data pertinent to the survey shall be made. The scope and format of the record survey data shall be satisfactory to the committee on blasting. Before commencing any blasting or ledge excavation, copies of the survey must be on file at the offices of the Quincy city engineer and the Quincy city clerk, City Hall, Quincy, MA. (Ord. 1988-236 (part): prior code Ch. 24, § 87 (part))

17.36.110 Blasting—Pre-blasting survey—Not required when.

No pre-blasting survey shall be required if blasting is within the following limits: The total charge weight per blast does not exceed five pounds and the maximum weight per delay does not exceed two pounds per delay. (Ord. 1988-236 (part): prior code Ch. 24, § 87 (part))

17.36.120 Blasting—Posting of bond—Required when—Amount.

If blasting is designed to excavate more than a ten-cubic-yard area, the contractor must post a bond with the city. The amount of said bond shall be determined by the committee on blasting. The committee on blasting will not release the bond until it is convinced that all judgments and claims have been reasonably dealt with by the contractor. (Ord. 1988-236 (part): prior code Ch. 24, § 87 (part))

17.36.130 Blasting—Fire department supervision—Required—Costs.

All blasting is to be supervised on site by an authorized member of the fire department, assigned by the chief, and the cost of said supervision shall be the sole responsibility of the contractor. (Ord. 1988-236 (part): prior code Ch. 24, § 87 (part))

17.36.140 Blasting—Violations—Penalties.

Any person who shall violate any of the provisions of Sections 17.36.090 through 17.36.130, as determined by the committee on blasting, or who fails to comply therewith, shall severally, for each and every violation and noncompliance respectively, be liable to a penalty of two hundred dollars for each offense. (Ord. 1988-236 (part): prior code Ch. 24, § 87 (part))

ORDER NO. 236 of 1988

ORDERED

May 16, 1988

Be it ordered that Chapter 24 of the Zoning Ordinance of the City of Quincy as amended, be further amended in Art. VIII, by adding a new section 87: Blasting.

Section 87

1. Pre-blast Survey

a. For all permits issued for blasting (rock excavation) in the City of Quincy, a pre-blast survey must be made by the contractor or by an approved firm in this kind of work and satisfactory to the contractor's insurance company.

b. The pre-blast survey will include a survey of the interior and exterior of existing buildings and stone walls adjacent to the project as specified herein, before any excavation or blasting is done. Written approval must be secured from the Fire Chief, City Engineer and Building Inspector serving as the Committee on Blasting.

c. The survey shall record all visible structural defects such as cracks, settlement and lines out of plumb.

d. The survey data shall be recorded in a permanent manner in approved hardbound notebooks. The survey data shall include polaroid photographs showing the building constructions surveyed referenced to the notebook pages. Also a tape recording of all data pertinent to the survey shall be made. The scope and format of the record survey data shall be satisfactory to the Committee on Blasting. Before commencing any blasting or ledge excavation, copies of the survey must be on file at the offices of the Quincy City Engineer, and Quincy City Clerk, City Hall, Quincy, MA.

e. The adjacent area requiring the pre-blasting survey is specified as all buildings and stone walls within a radius of three hundred fifty feet (350) from said blast.

f. Provided, however, that no pre-blasting survey shall be required if blasting is within the following limits: The total charge weight per blast does not exceed five (5) pounds and the maximum weight per delay does not exceed two pounds per delay.

YEAS Cahill, Cheney, Chretien, DeCristofaro, McGrath, Nutley, Phelan, Sheets, Toland

NAYS Cahill, Cheney, Chretien, DeCristofaro, McGrath, Nutley, Phelan, Sheets, Toland

ORDER NO.

ORDERED:

g. If blasting is designed to excavate more than a ten (10) cubic yard area, the contractor must post a bond with the City of Quincy. The amount of said bond shall be determined by the Committee on Blasting. The Committee on Blasting will not release the bond until it is convinced that all judgments and claims have been reasonably dealt with by the contractor.

h. All blasting is to be supervised on site by an authorized member of the Fire Department, assigned by the Chief, and the cost of said supervision shall be the sole responsibility of the contractor.

i. Any person who shall violate any of the provisions of this ordinance, as determined by the Committee on Blasting, or who fails to comply therewith, shall severally, for each and every violation and noncompliance respectively, be liable to a penalty of two hundred dollars ($200.00) for each offense.

PASSED TO BE ORDAINED OCTOBER 16, 1989

ATTEST

CLERK OF COUNCIL

APPROVED

OCT 23 1989

MAYOR

YEAS Cahill, Cheney, Chretien, DeCristofaro, McGrath, Nutley, Phelan, Sheets, Toland

NAYS Cahill, Cheney, Chretien, DeCristofaro, McGrath, Nutley, Phelan, Sheets, Toland

INTRODUCED BY WARD TWO COUNCILLOR DANIEL G. RAYMONDI
WARD ONE COUNCILLOR GREGORY M. HANLEY

CITY OF QUINCY
IN COUNCIL

ORDER NO.
ORDERED: 2000-078 February 22, 2000

Be it ordained by the City Council that the Revised Ordinances of the City of Quincy, 1993, as amended, be further amended by adding in Title 15 a new section, Section 15.26 entitled *City of Quincy Responsible Employer Ordinance.*

RESPONSIBLE EMPLOYER ORDINANCE

SECTION 15.26.1

All bidders and all subcontractors under the bidders for projects subject to M.G.L.A. C149, S44A(2) shall as a condition for bidding, agree in writing that they shall comply with the following:

A. **The bidder and all subcontractors under the bidder shall comply with the Quincy Responsible Employer Policy as it currently exists and as it may, from time to time, be amended.**

B. **The bidder and all subcontractors under the bidder shall comply with provisions of M.G.L.A. C149 and shall pay the appropriate lawful prevailing wage rates to their employees.**

C. **The bidder and all subcontractors under the bidder shall maintain or participate in a bona fide apprentice training program as defined by M.G.L.A. C23, S11H AND 11I for each apprenticeable trade or occupation represented in their workforce that is approved by the Division of Apprentice Training of the Department of Labor and Industries and shall abide by the apprentice to journeymen ratio for each trade prescribed therein in the performance of the contract.**

D. **In a manner that is consistent with applicable law and regulations, any bidder and all subcontractors under the bidder awarded a contract subject to this ordinance, shall recruit workers who are residents of the City of Quincy for each apprenticeable trade or occupation represented in their workforce that is approved by the Division of Apprentice Training of the Department of Labor and Industries, and shall hire qualified residents of the City of Quincy in filling the apprentice to journeymen ratio for each trade prescribed therein in the performance of the contract.**

E. **The bidder and all subcontractors under the bidder shall furnish, at their own expense, hospitalization and medical benefits at least equivalent to the hospitalization and medical benefits provided by the health and welfare plans in the applicable craft recognized by M.G.L.A.C149, S26 in establishing minimum wage rates for all their employees employed on the project.**

YEAS Cahill, D'Amico, Durkin, Hanley, Harold, McCauley, McDermott, Newton, Raymondi

NAYS Cahill, D'Amico, Durkin, Hanley, Harold, McCauley, McDermott, Newton, Raymondi

INTRODUCED BY WARD TWO COUNCILLOR DANIEL G. RAYMONDI
WARD ONE COUNCILLOR GREGORY M. HANLEY

CITY OF QUINCY
IN COUNCIL

ORDER NO. 2000-078 February 22, 2000

ORDERED:

F. The bidder and all subcontractors under the bidder shall maintain appropriate industrial accident insurance coverage for all the employees employed on the project in accordance with M.G.L.A. C152.

G. The bidder and all subcontractors under the bidder shall properly classify employees as employees rather than independent contractors and shall treat said employees accordingly for purposes of workers' compensation insurance coverage, employment taxes, social security taxes and income tax withholding pursuant to M.G.L.A.C149, S148B.

H. All bidders and all subcontractors under the bidders who are awarded contracts or who otherwise obtain contracts on projects subject to M.G.L.A.C149, S44A(2) shall comply with the provisions of the within ordinance and the City of Quincy Responsible Employer Policy for the duration of their work on the project, and an officer of each such bidder or subcontractor under the bidder shall certify under oath and in writing on a weekly basis that they are in compliance with said ordinance and/or policy.

I. Any bidder or subcontractor under the bidder who fails to comply with any of the obligations set forth in the within ordinance and/or the City of Quincy Responsible Employer Policy shall, by vote of the City Council, be subject to one or more of the following: (A) cessation of work on the project until compliance is obtained; (B) withholding of payment due under any contract or subcontract until compliance is obtained; (C) permanent removal from any further work on the project; and (D) liquidated damages payable to the City of Quincy in the amount of 5% of the dollar value of the contract.

J. In addition to the sanctions outlined in subparagraph I above, a general bidder or contractor shall be equally liable for the violations of its subcontractor with the exception of violations arising from work performed pursuant to subcontracts that are subject to M.G.L.A. C149, S44F. Any contractor or subcontractor who has been determined to have violated any of the obligations set forth in this ordinance shall be barred from performing any work on any future projects for six months for a first violation, for three years for a second violation, and permanently for a third violation.

YEAS Cahill, D'Amico, Durkin, Hanley, Harold, McCauley, McDermott, Newton, Raymondi

NAYS Cahill, D'Amico, Durkin, Hanley, Harold, McCauley, McDermott, Newton, Raymondi

INTRODUCED BY WARD TWO COUNCILLOR DANIEL G. RAYMONDI
WARD ONE COUNCILLOR GREGORY M. HANLEY

CITY OF QUINCY

IN COUNCIL

ORDER NO. 2000-078

ORDERED:

February 22, 2000

SECTION 15.26.2

The provisions of this ordinance shall not apply to:(A) construction projects when the low general bid is less than $100,000.00; (B) work performed pursuant to subcontracts that are subject to M.G.L.A.C149, S44F and that were bid for less than $25,000; and (C) re-bids for construction projects for which the City of Quincy receives fewer than three qualified general contract bidders in the original bid.

SECTION 15.26.3

In the event any part of this ordinance shall be held invalid, such invalidity shall no invalidate the whole ordinance but the remaining provisions of this ordinance shall not be affected thereby.

SECTION 15.26.4

All bidders and all subcontractors under the bidders shall provide documentation that they are in compliance with the provisions of this ordinance prior to the bid opening and all bidders and all subcontractors under the bidders shall complete and submit prior to the bid opening the certificate which is attached hereto and made a part of this ordinance.

SECTION 15.26.5

The bidder and all subcontractors under the bidder shall certify in writing that their employees shall be able to work in harmony with employees of all other sub-contractors on the job site. "Harmony" shall be defined to mean that the presence of any subcontractor's employees shall not result in any picket line, work stoppage or any other form of labor demonstrated on the job site or labor organizations representing the trades and/or crafts of the employees on the job sites.

SECTION 15.26.6

Any bidder or subcontractor under the bidder who fails to comply with the harmony requirement outlined above shall be at the sole discretion of the awarding authority, subject to one or more of the following sanctions:

YEAS Cahill, D'Amico, Durkin, Hanley, Harold, McCauley, McDermott, Newton, Raymondi

NAYS Cahill, D'Amico, Durkin, Hanley, Harold, McCauley, McDermott, Newton, Raymondi

INTRODUCED BY WARD TWO COUNCILLOR DANIEL G. RAYMONDI
WARD ONE COUNCILLOR GREGORY M. HANLEY

CITY OF QUINCY

IN COUNCIL

ORDER NO.

ORDERED:

(A) Cessation of work on the project until compliance with the harmony clause is assured subject to the sole and exclusive judgement of the awarding authority;

(B) Withholding of payment due under any contract or subcontract until compliance with the harmony clause is achieved under the sole and exclusive judgement of the awarding authority;

(C) Permanent removal from any further work on the project;

(D) Those costs incurred by the awarding authority or the bidder or subcontractors under the bidder to provide security which may or may not be in the form of police details, security fences, establishment of separate gates, etc., lost work days for every employee who is prevented from working on the job site by the establishment of picket lines, work stoppage or other labor demonstrations;

(E) Liquidated damages payable to the awarding authority in the amount of 5% of the dollar value of the contract entered into by the bidder or subcontractor under the under the bidder who cannot comply with the harmony clause.

PASSED TO BE ORDAINED JUNE 5, 2000

ATTEST:

CLERK OF COUNCIL

APPROVED

JUN 09 2000

MAYOR

YEAS Cahill, D'Amico, Durkin, Hanley, Harold, McCauley, McDermott, Newton, Raymondi

NAYS Cahill, D'Amico, Durkin, Hanley, Harold, McCauley, McDermott, Newton, Raymondi

INTRODUCED BY WARD ONE COUNCILLOR GREGORY M. HANLEY
WARD TWO COUNCILLOR DANIEL G. RAYMONDI

CITY OF QUINCY
IN COUNCIL

ORDER NO. 2001-192

ORDERED:

August 9, 2001

Be it ordained by the City Council, that the Municipal Code is hereby amended as follows:

In Title 15 Building & Construction, Chapter 15.26 Responsible Employer Ordinance, Section 15.26.010 add the following language in line 2 after Sections 44A(2)

ADD THE FOLLOWING:

Section 15.26.01 "and M.G.L. Chapter 30, Section 39M"

PASSED TO BE ORDAINED SEPTEMBER 24, 2001

ATTEST:

CLERK OF COUNCIL

APPROVED

SEP 28 2001

MAYOR

YEAS Cahill, D'Amico, Durkin, Hanley, Harold, McCauley, McDermott, Newton, Raymondi

NAYS Cahill, D'Amico, Durkin, Hanley, Harold, McCauley, McDermott, Newton, Raymondi

INTRODUCED BY **WARD THREE COUNCILLOR KEVIN F. COUGHLON**

MAYOR'S
SOLICITORS
AUDITORS
ASSESSORS
Purchasing

CITY OF QUINCY
IN COUNCIL

ORDER NO.
ORDERED: **2006-034**

January 17, 2006

Be it ordained that the Municipal Code is amended as follows:

In Title 15 Building and Construction Chapter 15.26 Responsible Employer Ordinance Section 15.26.010 (H) is amended as follows:

In line 2 after MCLAC 149,544 add "and MGL Chapter 30, Section 39 M"

And

In Title 15 Building and Construction Chapter 15.26 Responsible Employer Ordinance Section 15.26.010 (H) is amended as follows:

In line 6 after "ordinance and/or policy" add

Said certification shall be provided to the City of Quincy Purchasing Agent and shall include wages paid and health and welfare benefits offered and accepted regarding all contractors/subcontractors who are contracted on projects subject to MGL Chapter 149, Section 44A(2) and MGLA Chapter 30, Section 39M. Said reports shall be made available to the City Council and general public upon request. Any violations of any provision of this ordinance shall be reported by the City Purchasing Agent to the City Council and follow the enforcement procedures outlines therein.

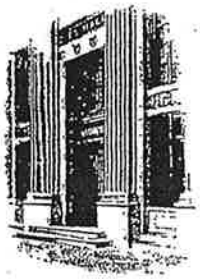
PASSED TO BE ORDAINED MARCH 6, 2006

ATTEST: Joseph Shea
CLERK OF COUNCIL

APPROVED
MAR 9 2006
MAYOR

YEAS Coughlin, Davis, Finn, Gardner, Gutro, Keenan, Kelly, McCauley, Raymondi

NAYS Coughlin, Davis, Finn, Gardner



CERTIFICATION CONCERNING RESPONSIBLE EMPLOYER ORDINANCE

It is hereby certified as a condition for bidding that the bidder and all subcontractors under the bidder shall comply with all of the provisions of the Quincy Responsible Employer Ordinance and with all amendments thereto.

_____
Name of Bidder or Sub-contractor

By: _____
Authorized Agent

_____
Print or Type Name

City of Quincy

City Hall
1305 Hancock Street
Quincy, Massachusetts 02169

Purchasing Department

William J. Phelan
Mayor

Laurie M. Allen
Purchasing Agent
Phone: (617) 376-1060
Fax: (617) 376-1074

CERTIFICATION PURSUANT TO RESPONSIBLE EMPLOYER ORDINANCE
(Upon Award of Contract)

City Contract Number _____

Name of Contract _____

Contractor Name _____

Contractor Address _____

_____

Certification for the Week Ending _____

I hereby certify as follows:

1. The Contractor is in compliance with the Responsible Employer Ordinance of the City of Quincy.

2. The following wages have been paid by the Contractor (please list by classification and hourly rate)

Classification	Hourly Rate
_____	$ _____ . ____
_____	$ _____ . ____
_____	$ _____ . ____
_____	$ _____ . ____
_____	$ _____ . ____
_____	$ _____ . ____

3. The following health and welfare benefits have been offered by the Contractor and accepted: (e.g. Harvard Pilgrim, Delta Dental, Boston Mutual Life Insurance etc.)

_____

_____

_____

_____

4. That I am duly authorized by the Contractor to sign this Certification.

Signed under the Pains and Penalties of Perjury this _____ day of _____ , 200 ___ .

_____
Signature

_____
Print Name

(Use additional sheets as necessary)

SUPPLEMENTARY CONDITIONS

Engineers' Joint Contract Documents Committee Document No. C-700 (2002 Edition), "Standard General Conditions of the Construction Contract" constitutes the General Conditions of this Contract. These Supplementary Conditions supplement and amend the General Conditions. All provisions of the General Conditions not specifically amended, deleted, or superseded by these Supplementary Conditions shall remain in full effect.

ARTICLE 1 - DEFINITIONS

Paragraph 1.01(A)(44) – Subcontractor

In the definition of *Subcontractor*, revise the definition to read as follows:

An individual or entity, including filed sub-bidders, having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the Site.

Paragraph 1.01(A)(45) -- Substantial Completion

In the definition of *Substantial Completion*, add the following at the end of the first sentence:

, and either (i) the Work required by the Contract has been completed except for work having a contract price of less than one percent of the then-adjusted total Contract Sum, or (ii) substantially all of the Work has been completed and opened for public use except for minor incomplete or unsatisfactory work items that do not materially impair the usefulness of the Work required by the Contract.

Insert the following additional definitions:

Paragraph 1.01(A)(31A) Plans - Shall have the identical definition as the term "Drawings" and may be used interchangeably in the Contract Documents.

Paragraph 1.01(A)(32A) Proposal - Shall have the identical definition as the term "Bid" and may be used interchangeably in the Contract Documents.

ARTICLE 2 - PRELIMINARY MATTERS

Paragraph 2.01

Revise Paragraph 2.01A to read as follows:

CONTRACTOR shall deliver to the OWNER, prior to execution of the Contract, such Bonds and Insurance as CONTRACTOR may be required to furnish.

Paragraph 2.02

Revise Paragraph 2.02 to read as follows:

Owner shall furnish to Contractor up to five copies of the Contract Documents as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of $100.00 per set.

Paragraph 2.05

In the final line of Paragraph 2.05(A)(3), add the following after "Work:"
, which will be confirmed in writing by Contractor at the time of submission.

Add a new paragraph immediately after paragraph 2.05(A)(3) of the General Conditions, which is to read as follows:

A(4). A complete listing of equipment and materials, and shall determine lead time between placing orders and delivery including normal allowances of time for processing and correcting Shop Drawings. The construction schedule shall reflect these delivery dates. All orders for long lead items shall be placed within thirty- (30) days after Effective Date of the Agreement if delivery is critical to scheduling. Failure to place orders promptly will result in full liability for liquidated damages if schedules are not met.

Revise Paragraph 2.05(C) to read as follows:

C. *Evidence of Insurance:* Before any Work at the Site is started, CONTRACTOR shall deliver to the OWNER, with copies of additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which the OWNER or any additional insured may reasonably request) which CONTRACTOR is required to purchase and maintain in accordance with Article 5.

Paragraph 2.08

Insert new Paragraph 2.08 as follows:

2.08 *Compliance with Laws.* This Contract is subject to all Laws and Regulations of the United States of America, the Commonwealth of Massachusetts, the City of Quincy and other public authorities, and all amendments thereto, and where any requirements contained herein do not conform to or are inconsistent with such Laws and Regulations to which the Contract is subject or by which it is governed, such Laws and Regulations shall have precedence over any matters set forth herein. Statutes, regulations, and portions and summaries thereof which are set forth or referred to in the Contract Documents shall be construed to include all amendments thereto effective as of the date of issuance of the Invitation to Bid for the Contract. The Owner makes no representation as to and assumes no responsibility for the correctness or completeness of such statutory matters referred to or set forth herein.

ARTICLE 3 - CONTRACT DOCUMENTS; INTENT, AMENDING, REUSE

Paragraph 3.01

Add the following at the end of Paragraph 3.01(A):

The Contract Documents comprise the entire agreement between Owner and Contractor concerning the Work. The Contract Documents will be construed in accordance with the law of the Commonwealth of Massachusetts. If any term or provision of any of the Contract Documents, or the application thereof to any party or circumstance shall, to any extent, be determined to be invalid or unenforceable, the remaining provisions of the Contract Documents, or the application of such term or provision to parties or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected

thereby, and each term and provision of each of the Contract Documents shall be valid and shall be enforced to the fullest extent permitted by law.

Paragraph 3.03

Insert new Paragraph 3.03(B)(1)(c) after Paragraph 3.03(B)(1)(b) as follows:

c. In the event of conflicts, inconsistencies or discrepancies among the Contract Documents or within any of the Contract Documents, to the extent applicable, the better quality or greater quantity of work shall be provided without change in the Contract Price. In the event of such conflicts, inconsistencies or discrepancies which do not relate to the quality or quantity of work, the Contractor shall request instructions or interpretations from the Engineer as provided in the Contract Documents, and shall be governed by the Engineer's directions.

Paragraph 3.04

Add the following sentence at the end of Paragraph 3.04(A):

Contract Price and Contract Times (or Milestones) may only be changed by a Change Order or a Written Amendment.

ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS

Paragraph 4.01

Delete Paragraph 4.01(B) in its entirety.

Paragraph 4.02

In the first sentence of Paragraph 4.02(A) replace the term "Supplementary Conditions" with "Contract Documents."

Paragraph 4.03

Delete Paragraph 4.03(A) and substitute the following:

A. *Statutory Provisions Governs*.

Changes in the Work arising out of differing subsurface or latent physical conditions shall be governed by Massachusetts General Laws, Chapter 30, §39N.

Delete Paragraph 4.03(C)(1)(a) in its entirety.

Delete Paragraph 4.03(C)(2)(c) and substitute the following:

c. CONTRACTOR failed to give timely written notice as required by MGL C. 30, §39N.

Paragraph 4.04

Add the following sentence at the end of Paragraph 4.04(B)(2):

However, Owner, Engineer and Engineer's Consultants shall not be liable to Contractor for any claims, losses, or damages (including but not limited to all fees and changes of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor or in connection with any other project or anticipated projects.

Paragraph 4.06

In the first sentence of Paragraph 4.06(A), replace the term "Supplementary Conditions" with "Contract Documents".

Delete the second sentence of Paragraph 4.06(B) in its entirety.

Delete Paragraph 4.06(G) in its entirety.

ARTICLE 5 - BONDS AND INSURANCE

Paragraph 5.01(C)

In the fifth line of Paragraph 5.01(C), change "twenty days" to "five days".

Paragraph 5.02

Delete the first sentence of Paragraph 5.02 and substitute the following:

All Bonds and insurance required of the Contractor by the Contract Documents shall be obtained from surety or insurance companies qualified to do business under the laws of the Commonwealth of Massachusetts and acceptable to the Owner. The premiums for all Bonds are to be included in the Contract Price and paid by the Contractor. All Bonds shall be executed in the required number of counterparts and shall be submitted to the Owner for insertion into the Contract Documents prior to the execution of the Agreement. The security required by Section 29 of Chapter 149 of the General Laws shall be provided exclusively by the Bonds referred to in this Paragraph 5.02 and not by any money retained by the Owner under other provisions of the Contract Documents, such retention being solely for the benefit of the Owner.

Paragraph 5.04

In the second line of Paragraph 5.04(A) replace "is appropriate for the Work being performed" with "required by Paragraph 5.04(A)(7)".

Insert new Paragraph 5.04(A)(7) as follows:

7. claims arising out of operation of Laws or Regulations for damages because of bodily injury or death of any person or for damage to property;

Delete Paragraph 5.04(B)(1) in its entirety.

Add the following new Paragraph 5.04(C) after Paragraph 5.04(B):

C. The insurance coverages to be maintained by the Contractor under this Paragraph shall include the following:

.1 Workers' compensation insurance with statutory limits in accordance with applicable state laws. (including employer's liability insurance with a minimum limit per accident or disease not less than $1,000,000). The attention of the Contractor and all Subcontractors is drawn to M.G.L., Chapter 149 §34A concerning insurance requirements.

.2 Commercial general liability insurance, including so-called comprehensive broad form endorsement, with limits, alone or in combination with "umbrella" excess liability insurance, not less than $3,000,000 per occurrence and aggregate for personal or bodily injury and $1,000,000 per occurrence and aggregate for property damage. A combined single limit per occurrence of $3,000,000 is acceptable. The commercial general liability insurance shall include, but not necessarily be limited to, coverage for:

(a) Premises - operations and completed operations liability (this coverage to be maintained for no less than two (2) years after final acceptance of the Project by Owner).

(b) Independent contractors, covering operations of any and all Subcontractors.

(c) Blanket contractual liability covering all liabilities assumed under the Contract Documents, including without limitation the Contractor's obligations to the Owner and the Engineer and their agents and employees as provided in Paragraph 6.20 of the Conditions of the Contract.

(d) Coverage for explosion, collapse, undermining and damage to underground utilities and property.

(e) Personal and advertising injury liability ($1,000,000 limit).

(f) Broad form coverage for damage to property of the Owner, as well as third parties, while in the care, custody or control of the Contractor.

.3 Comprehensive automobile liability insurance with limits of not less than $1,000,000 for any person and $1,000,000 for any one accident for bodily injury including death and $1,000,000 for property damage covering:

(a) All owned vehicles.

(b) Hired cars and trucks.

(c) All other non-owned vehicles.

(d) Loading and unloading of any motor vehicle.

The Owner, Engineer and Engineer's subconsultants, such other parties as may be designated by the Owner shall be named as additional insureds in the policies of insurance and so identified on insurance binders or certificates evidencing insurance. Contractor shall deliver such insurance binders or certificates evidencing insurance (and such other evidence of insurance requested by Owner or any other additional insured) to Owner, with copies to each additional insured. All such policies shall contain provisions or endorsements necessary to assure coverage of claims by one insured against another. All

required insurance policies are to be endorsed to state that the Contractor's policies shall be primary to all other insurance available to the Owner and other specified additional insureds for liability arising out of or resulting from the Contractor's operations under the Contract, whether such operations are by Contractor, Subcontractor , anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable. The Owner is to be furnished originals or certified copies of the policy or policies including all endorsements required to provide stated coverage prior to execution of the Contract by the CONTRACTOR. The purchase of insurance to satisfy the above requirements, or the furnishing of insurance binders or certificates evidencing insurance, shall not be a satisfaction of Contractor's liability under this Contract or in any way modify Contractor's indemnification of the Owner.

Paragraphs 5.05 - 5.08

Delete Paragraphs 5.05 through 5.08 in their entirety and substitute the following Paragraph 5.05:

5.05 Property Insurance

Property insurance to the full insurable value of the Work will not be provided by the Owner in the form of 100% Builder's Risk, "all risk" or open peril or special causes of loss policy. Contractor shall obtain an installation floater in the full contract amount.

Revise Paragraph 5.09 to read as follows:

A. If OWNER has any objection to the coverage afforded by or other provisions of the Bonds or insurance required to be purchased and maintained by the CONTRACTOR in accordance with Article 5 on the basis of nonconformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by paragraph 2.05.C. CONTRACTOR shall provide OWNER such additional information in respect of insurance provided as the OWNER may reasonably request. If the CONTRACTOR does not purchase or maintain all of the Bonds and insurance required of such party by the Contract Documents, the CONTRACTOR shall notify the OWNER in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the OWNER may elect to obtain equivalent Bonds or insurance to protect it's interests at the expense of the CONTRACTOR and a Change Order shall be issued to adjust the Contract Price accordingly.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

Paragraph 6.01(B)

Revise Paragraph 6.01(B) to read as follows:

At all times during the progress of the Work, CONTRACTOR shall assign a competent resident superintendent thereto who shall not be replaced except under extraordinary circumstances and upon prior written notice to the OWNER. The superintendent will be CONTRACTOR's representative at the Site and shall have authority to act on behalf of CONTRACTOR. All communications given to or received from the superintendent shall be binding on CONTRACTOR.

Add the following at the end of Paragraph 6.01(B):

The Contractor's superintendent shall be satisfactory to the Engineer and the Owner and shall be replaced by the Contractor upon reasonable request by the Engineer or the Owner. The Contractor's superintendent shall keep a daily log of the progress of the Work and make this accessible to the Owner at all times; a copy shall be submitted to the Owner for its records upon completion of the Work. The

Contractor shall furnish to both the Owner and Engineer the names, addresses and telephone numbers of his job superintendent, the job superintendents of all subcontractors and at least two other authorized representatives indicating where they may be contacted at times other than normal working hours in case of emergency. The Contractor's superintendent shall remain in attendance at the site, and, except for illness or other reason excusable to the Owner, shall be present at all times when Work of any kind is being done, including Work done during overtime. If absent for illness or other reason excusable to Owner, a replacement shall be named for the period of absence, such replacement having full authority and responsibility of the full-time superintendent. Upon written request by the Owner, the Contractor shall replace its Superintendent with an individual satisfactory to the Owner.

Paragraph 6.02

Add the following to the end of Paragraph 6.02(A):

Whenever the engineer notifies the Contractor in writing that, in his opinion, any worker on the job employed by the Contractor, or any of his Subcontractors is incompetent, unfaithful, or otherwise unsatisfactory, such workers shall be discharged from the Contract Work and shall not be employed on it except with the written consent of the Engineer.

Add the following new Paragraph 6.02(C) at the end of Paragraph 6.02(B):

C. The Contractor shall furnish labor that can work in harmony with all other elements of labor employed or to be employed in the Work. The requirements and provisions of all applicable Laws and Regulations concerning the employment of labor (including without limitation Massachusetts General Laws, Chapter 149, §§ 26-27 and §29), and minimum wage rates established in accordance with law shall be a part of and are hereby incorporated by reference in these Conditions. Copies of the minimum wage rates are included in the Contract Documents. If it becomes necessary to employ any person in a trade or occupation not classified in the minimum wage rates included in the Contract Documents, the Contractor shall notify the Owner of his intention to employ persons in such unclassified trade or occupation in sufficient time for the Owner to obtain approved minimum wage rates for such trade or occupation. Such person shall be paid at not less than such rates as shall be determined by the Department of Labor and Industries or other proper officials in accordance with law, and such approved minimum wage rates shall be retroactive to the time of the initial employment of such person in such trade or occupation. The wage rates included in the Contract Documents are minimum rates only, and the Owner will not consider any claim for an increase in the Contract Price made by the Contractor because of payment by the Contractor of any wage rate in excess of the applicable rate contained in the Contract Documents or any increase in applicable rates. Such schedule of wage rates shall continue to be the minimum rates to be paid during the life of this Contract, and a legible copy of such schedule shall be kept posted in a conspicuous place at the site of the Work.

Paragraph 6.03

Amend Paragraph 6.03(A) to read as follows:

Contractor shall furnish and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, execution, testing, start-up and completion of the Work.

Paragraph 6.05

Delete the first paragraph under Paragraph 6.05(A) in its entirety and substitute the following:

Reference in the Specifications or Drawings to any product, material, equipment, method or process by proprietary name, manufacturer, vendor, supplier, make or catalogue number shall be interpreted as establishing a standard of quality and function. An item will be considered an "or equal" item if (1) it is at least equal in quality, durability, appearance, strength and design to the item so named or described in the Specifications; (2) it will perform at least equally the function imposed by the general design for the Work; and (3) it conforms substantially, even with deviations, to the detailed requirements for the item named or described in the Specifications (See M.G.L. Chapter 30, Section 39M (b)). The Engineer shall be the sole judge of whether any proposed substitute product, material, equipment, process or method is an "or equal" item according to this standard, and the Engineer's decision shall be final and binding on the Contractor and any Subcontractor. After the Contract has been executed, the Owner and the Engineer will consider formal requests for the substitution of products in place of those specified only under the conditions set forth in the Specifications and these Conditions. Any additional cost, or any loss or damage arising from the substitution of any material or any method for those originally specified shall be borne by the Contractor, including, without limitation, the costs of modifying documents , additional fees of the Owner's consultants or engineers, and the costs of data provided by Contractor in support of any proposed "or equal" or substitute item, notwithstanding approval or acceptance of such substitution by the Owner or the Engineer, unless such substitution was made at the written request or direction of the Owner or the Engineer.

Delete Paragraphs 6.05(A)(1) its entirety.

In the fourth line of Paragraph 6.05(A)(2)(a), change "Paragraph 6.05(A)(1)" to "Paragraph 6.05(A)".

<u>Paragraph 6.06</u>

Add the following at the end of Paragraph 6.06(A):

The Contractor shall submit within ten (10) days following receipt of Notice of Award, a list of all suppliers and Subcontractors, with a description of the equipment or work they will provide.

Delete Paragraph 6.06(F) in its entirety.

Delete the second and third sentences of Paragraph 6.06(G) in their entirety.

<u>Paragraph 6.07</u>

Add the following at the end of Paragraph 6.07(A):

At the Owner's option, Contractor shall defend all such claims in connection with any alleged infringement of such rights.

<u>Paragraph 6.08</u>

Amend Paragraph 6.08 to read as follows:

The Contractor shall be responsible for obtaining all required permits and approvals relating to the construction of the project except as noted in Section 01010.

<u>Paragraph 6.09.</u>

Amend Paragraph 6.09(B) to read as follows:

If Contractor observes that the Specifications or Drawings are at variance with any Laws or Regulations, Contractor shall give Engineer prompt written notice thereof, and any necessary changes will be authorized by one of the methods set forth in Paragraph 3.04. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, CONTRACTOR shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work.

Delete Paragraph 6.09(C)

Paragraph 6.10

Delete Paragraph 6.10 and substitute the following:

A Section 6(f) of Chapter 64H of the Massachusetts General Laws exempts from Massachusetts sales tax building materials and supplies to be used in the Project, and bidders shall not include in their bids any amount therefor. The words "building materials and supplies" shall include all materials and supplies consumed, employed or expended in the construction, reconstruction, alteration, remodeling or repair of any building, structure, public highway, bridge, or other such public work, as well as such materials and supplies physically incorporated therein. Said words shall also include rental charges for construction vehicles, equipment and machinery rented specifically for use on the Project site , or while being used exclusively for the transportation of materials for the Project. The number of the certificate granted by the Commissioner of Revenue for use in obtaining the exemption will be furnished to the Contractor upon request. The Contractor will not be paid for any sales taxes paid by the Contractor for which such exemption is or would have been applicable. The Contractor shall pay all sales, consumer, use and other similar taxes assessed upon the Work or portions thereof provided by the Contractor, or otherwise attributable to the Project, which are legally enacted at the time bids are received, whether or not yet effective, to which such exemption is not applicable.

Paragraph 6.11

In Paragraph 6.11(A)(2), change "negotiation" to "agreement".

Paragraph 6.12

Add new paragraph 6.12(B) as follows:

The attention of the Contractor and all Subcontractors is drawn to M.G.L., Chapter 30 §39R concerning retainment of records.

Paragraph 6.13

Add the following at the end of Paragraph 6.13(B):

The Contractor shall have on the job and comply with the recommendations of the most recent edition of Industrial Bulletin No. 12, "Rules and Regulations for the Prevention of Accidents in Construction Operations" of the Commonwealth of Massachusetts Department of Labor and Industries, and the "Manual of Accident Prevention in Construction" of the Association of General Contractors. In the

event the Contractor discovers any active utility line not disclosed in any plan or survey, he shall cease all Work in the immediate area which may affect such line, and shall promptly notify the Owner, the Engineer, and the affected utility company. The Contractor shall not restart Work without notice from and approval of the Engineer. The Owner places special emphasis on the protection of persons and existing structures, and there shall be no compromise as to the degree of protection required. The attention of the Contractor and all Subcontractors is drawn to M.G.L., Chapter 149 §44F(1)(a) regarding weather protection of property.

Paragraph 6.14

Add the following at the end of Paragraph 6.14:

This person shall be Contractor's superintendent unless otherwise designated in writing by Contractor to Owner.

Paragraph 6.17

Add the following at the end of the first sentence of Paragraph 6.17(A):

, or for other appropriate action if so indicated in the Supplementary Conditions.

Add a new Paragraph immediately following Paragraph 6.19 (C)(7) as follows:

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

Add a new Paragraph immediately following Paragraph 6.19(C)(8) as follows:

C. The Contractor guarantees that the work and services to be performed under the Contract, and all workmanship, materials and equipment performed, furnished, used or installed in the construction of the same shall be free from defects and flaws, and shall be performed and furnished in strict accordance with the Drawings, Specifications, and other Contract Documents, that the strength of all parts of all manufactured equipment shall be adequate and as specified and that the performance test requirements of the Contract shall be fulfilled. This guarantee shall be for a period of one year from and after the date of completion and acceptance of the work as issued by the Engineer. If part of the work is accepted in accordance with the Contract Documents, the guarantee for that part of the work shall be for a period of one year from the date fixed for such acceptance by the Engineer.

If at any time within the said period of guarantee any part of the work requires repairing, correction or replacement, the Owner may notify the Contractor in writing to make the required repairs, correction or replacements. If the Contractor neglects to commence making such repairs, corrections or replacements to the satisfaction of the Owner within ten (10) days from the date of receipt of such notice, or having commenced fails to prosecute such work to the Owner's satisfaction, the Owner may employ other persons to make said repairs, correction or replacements, including compensation for additional professional services, shall be paid by the Contractor.

Paragraph 6.20

Insert the following in the second line of Paragraph 6.20(A) after the word "indemnify":

", defend with counsel designated by the insurer accepting liability for the claim or damage or, in lieu thereof, counsel acceptable to the Owner".

Add a new Paragraph immediately after paragraph 6.20(A) as follows:

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

Add the following at the end of Paragraph 6.20(C)(2)

", provided however, that if the claim, cost, loss or damage referred to in this Paragraph 6.20 results from failure of the Engineer to discover a condition or object which is underground or otherwise not reasonably observable by the Engineer, and if said failure to discover either was or should have been apparent to the Contractor in that the said condition or object is omitted from the Engineer's maps, drawings, opinions, reports, surveys, change orders, designs or specifications, then the Contractor shall be liable for indemnification of the Engineer and Owner under Paragraph 6.20 for claims, costs, losses and damages resulting from said failure to discover unless Contractor shall have notified Engineer of the existence and location of such condition or object prior to the occurrence of such claims, costs, losses and damages and in sufficient time for Engineer to have made provisions therefore."

ARTICLE 7 – OTHER WORK

Add a new Paragraph immediately after Paragraph 7.02 as follows:

Owner shall perform other work related to the Project at the site by his own forces or let other direct contracts to have said work performed concurrently with Work under this Contract.

ARTICLE 8 - OWNER'S RESPONSIBILITIES

Paragraph 8.02

Revise Paragraph 8.02(A) as follows:

In case of termination of the employment of ENGINEER, OWNER shall appoint a new engineer whose status under the Contract Documents shall be that of the former ENGINEER.

Paragraph 8.06

Delete Paragraph 8.06.

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

Paragraph 9.03

In Paragraph 9.03(A) insert "and duties" after "responsibilities".

Add the following sentence to the end of Paragraph 9.03:

Unless otherwise agreed, the responsibilities and duties and authority and limitations of the Resident Project Representative shall be contained in "Duties, Responsibilities and Limitations of Authority of

Resident Project Representative," EJCDC Document No. 1910-1-A [(1983] edition). Additionally, Owner may designate a Resident Project Representative or Resident Engineer to observe the performance of the Work. It shall be the duty of the Resident Project Representative to observe the Work and render decisions as to its acceptability. The responsibilities and limitations of authority of the Resident Project Representative shall be the same as set forth in Article 9 of the General Conditions.

Paragraph 9.08

Add the following new Paragraph 9.08(E) as follows:

Pursuant to Massachusetts General Laws, Chapter 30, §39P, the Engineer will render decisions on interpretation of the Specifications, approval of equipment, material or any other approval, or progress of the Work 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 Engineer shall, within thirty (30) days after the receipt of the submission, give the party making the submission written notice of the reasons why the decision cannot be made within the thirty-day period and the date by which the decision will be made. Either party to the Contract may make written submission to the Engineer for such decisions.

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

Add the following new paragraph 10.02(B) as follows:

The attention of the Contractor and all Subcontractors is drawn to M.G.L., Chapter 30 §39I concerning deviations from plans and specifications.

Revise Paragraph 10.05(B) as follows:

B. *Notice:* The CONTRACTOR shall deliver written notice stating the general nature of each Claim, dispute, or other matter to ENGINEER and the OWNER to the Contract promptly (but in no event later than 14 days) after the start of the event giving rise thereto. CONTRACTOR's failure to comply with this notice requirement shall constitute a waiver of the Claim. Notice of the amount or extent of the Claim, dispute, or other matter with supporting data shall be delivered to the ENGINEER and the OWNER to the Contract within 30 days after the start of such event (unless ENGINEER allows additional time for claimant to submit additional or more accurate data in support of such Claim, dispute, or other matter). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of paragraph 12.02.B. Each Claim shall be accompanied by CONTRACTOR's written statement that the adjustment claimed is the entire adjustment to which the CONTRACTOR believes it is entitled as a result of said event.

ARTICLE 11 – COST OF THE WORK

Paragraph 11.03

Delete Subparagraphs 11.0.3(D)(1), (2) and (3), and substitute the following:

11.0.3(D) When the accepted quantity of any item of Unit Price Work performed by the Contractor differs from the estimated quantity of such item in the Contractor's bid schedule, payment shall be made at the original Contract Unit Price for the accepted quantity of work done. No adjustment

or allowance will be made for any increased expenses, loss of expected reimbursement or loss of anticipated profits suffered or claimed by the Contractor resulting either directly or indirectly from such increased or decreased quantities, or from unbalanced allocation among the Contract items of overhead expense on the part of the bidder and subsequent loss of expected reimbursements therefore, or from any other cause.

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

Paragraph 12.01

In Paragraph 12.01(C)(2)(a) change “15” to “10”.

In Paragraph 12.01(C)(2)(c) change “15” to “10”.

In Paragraph 12.01(C)(2)(e) change “five” to “ten”.

Delete Paragraphs 12.02 through 12.03 and substitute the following:

12.02 *Change of Contract Times*. If the Contractor is delayed in the commencement, prosecution or completion of the Work by any act or omission of the Owner or the Engineer, or an employee of either, or a separate contractor employed by the Owner (except when the contract with such separate contractor has been assigned to the Contractor), or by changes in the Work duly ordered by the Owner, or by strikes, acts of war or terrorism, unusually severe weather not anticipatable and preventing any continuation of operations by the Contractor, unavoidable casualties, or such other unforeseeable causes as are beyond the control of the Contractor and are not caused in whole or in part by any fault or negligence of the Contractor (other than delays occasioned by financial difficulties of the Contractor), then, except as provided in Paragraph 12.04 in the case of certain delays caused by the Owner, the Contractor’s sole remedy shall be that the Contract Time (or Milestone) shall be extended by Change Order for such reasonable period of time, if any, as the Engineer may determine is required due to the nature of the delay, all subject to the provisions of this Article 12, and the Contractor shall not be entitled to claim damages or any increase in the Contract Price on account of such delay. The procedures set forth in, and all other provisions contained in, this Article 12 are in addition to the provisions of the Contract Documents relating to procedures for Change Orders.

12.03 *Notice*. The Contractor shall notify the Engineer as soon as possible of any cause that may delay the Work. The Contractor shall give written notice to the Engineer within ten (10) days after the time that he knows or should know of any cause which will result (or has resulted) in delay for which he claims or intends to claim an extension of the Contract Time (or Milestone) (including those causes which the Owner or the Engineer is responsible for or has knowledge of). Any such written notice shall (1) state that an extension is claimed; (2) identify the cause of delay; and (3) describe as fully as practicable at the time the nature and expected duration of the delay and its effect on the various portions of the Work. The submission of such written notice within the time period provided above shall be a condition precedent to any extension of the Contract Time (or Milestone). Failure to submit such written notice shall constitute a waiver of such extension of the Contract Time (or milestone).

12.04 *Statutory Provisions*. The following clauses (a) and (b) of this Paragraph 12.3 are included herein pursuant to requirements of Massachusetts General Laws, Chapter 30, §39O. In the event that suspension, delay, interruption or failure to act of the Owner increases the cost of performance to any Subcontractor, the Subcontractor shall have the same rights against the Contractor for payment for an increase in the cost of his performance as provisions (a) and (b) give the Contractor

against the Owner, but nothing in provisions (a) and (b) shall in any way change, modify or alter any other rights which the Contractor or the Subcontractor may have against each other.

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

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

ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, ETC.

Paragraph 13.01

Delete Paragraph 13.01 and substitute the following :

13.01 *Defective Work.* Contractor warrants and guarantees to Owner and Engineer that all Work will be in accordance with the Contract Documents and will not be defective. Prompt notice of all defective work of which Owner or Engineer has actual knowledge shall be given to Contractor. All defective work may be rejected, corrected or accepted as provided in this Article 13. The Contractor shall obtain and preserve for the benefit of the Owner manufacturer's warranties on materials incorporated into the Work, and the Contractor shall prepare and execute a written guarantee and warranty applicable to all phases of the Work in accordance with the provisions of this Paragraph 13.01 and all other applicable provisions of the Contract Documents pertaining to warranties and guarantees, and shall also secure and pass through to the Owner written guarantees and warranties prepared in a similar manner from each Subcontractor engaged in the performance of the Work and, prior to Substantial Completion, shall deliver two (2) sets of all such guarantees and warranties to the Engineer for review. All materials, equipment and supplies requiring replacement during any guarantee period specified in the Contract Documents shall be subject to a supplementary guarantee and warranty extending the guarantee period to cover all such items for the full guarantee period specified, beginning as of the date of acceptance of each such replacement item or element of work. The warranty and guarantee provisions of this Paragraph 13.01 shall be in addition to and not in limitation of any other warranties, guarantees or remedies allowed by law or the Contract Documents.

Paragraph 13.02

Add the following after Paragraph 13.02:

13.02(B). Inspection by State and Federal Officials

Representatives of the State and Federal Government shall have access to the Work wherever it is in preparation or progress. The Contractor shall provide facilities for access and inspection.

Paragraph 13.03

Add the following at the end of Paragraph 13.03(A):

Contractor shall furnish written information to Engineer stating the original sources of supply of all materials procured or manufactured away from the actual site of the Work. In order to ensure a proper time sequence for required inspection and approval, this information shall be furnished at least two (2) weeks (or as otherwise directed by Engineer) in advance of the incorporation in the Work of any such materials.

Add as new Subparagraph 13.03(B)(4) the following :

4. and; the costs of tests, inspections and approvals related to remedial operations performed to correct defective Work shall be borne by Contractor.

Insert at the end of Paragraph 13.03(C) the following:

All inspections, tests or approvals other than those required by Laws and Regulations of any public body having jurisdiction shall be performed by organizations acceptable to Owner, Contractor and Engineer.

In the first line of Paragraph 13.03(E), change “or” to “including”.

Revise Paragraph 13.03(F) to read as follows:

F. Uncovering Work as provided in paragraph 13.03E shall be at CONTRACTOR’s expense.

Insert new Paragraph 13.03(G) as follows:

G. Neither observations by Engineer nor inspections, tests or approvals by others shall relieve Contractor from Contractor’s obligations to perform the work in accordance with the Contract Documents.

Paragraph 13.07

At the end of Paragraph 13.07(B) add the following:

Or may be deducted from amounts otherwise due the CONTRACTOR.

At the end of Paragraph 13.07(D) add the following:

Or may be deducted from amounts otherwise due the Contractor, and the terms of this Paragraph 13.07 will continue to apply.

Paragraph 13.09

Revise paragraph 13.09(A) to read as follows:

A. If CONTRACTOR fails after written notice from ENGINEER or OWNER to correct defective Work or to remove and replace rejected Work as required by ENGINEER in accordance with paragraph 13.06.A, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, immediately, correct and remedy any such deficiency.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

Paragraph 14.02

Insert the following at the end of the first sentence of Paragraph 14.02(A)(1):

", or by the Owner or the Engineer, including, without limitation, evidence of payment by Contractor for all materials and equipment included in such Application for Payment."

Add the following new Paragraph 14.02(A)(4) after Paragraph 14.02(A)(3):

Payments will be made in accordance with Massachusetts General Laws, Chapter 30, §39K. The attention of the Contractor and all Subcontractors is drawn to M.G.L., Chapter 30 §39F(a)-(i) concerning Contractor's payment to Subcontractors and Owner's obligations in regard to Subcontractors' payment. The attention of the Contractor and all Subcontractors is drawn to Massachusetts General Laws, Chapter 266, §§67A, 67B and 67C, and Chapter 93, §9B, concerning penalties for false or fraudulent claims, representations and records.

Add the following to the end of Paragraph 14.02(B)(1):

The Contractor's sole remedy for the Engineer's delay in approving a progress payment or the Owner's delay in paying the Contractor shall be the payment of interest as provided in Massachusetts General Laws, Chapter 30, §§39F.

Add the following to the end of Paragraph 14.02(B)(4)(e):

Except to the extent otherwise provided in the Contract Documents.

Delete Paragraph 14.02(C)(1) and replace with the following:

Fifteen (15) days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02(D)) become due, and when due will be paid by Owner to Contractor.

In the fourth line of Paragraph 14.02(D)(1)(b), add the following:

and provides an indemnity satisfactory to Owner for all claims, costs, losses and damages arising out of the Liens,

Delete Paragraph 14.02(D)(3)

Paragraph 14.05

Add Paragraph 14.05(A)(5) as follows:

3. Owner may at any time request Contractor in writing to permit Owner to take over operation of any such part of the Work although it is not substantially complete. A copy of such request will be sent to Engineer and, within a reasonable time thereafter, Owner, Contractor and Engineer shall make an inspection of that part of the Work to determine its status of completion and will prepare a list of the items remaining to be completed or corrected thereon before final payment. If Contractor does not object in writing to Owner and Engineer that such part of the Work is not ready for separate operation by Owner, Engineer will finalize the list of items to be completed or corrected and will deliver such list to Owner and Contractor together with a written recommendation as to the division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, maintenance, utilities, insurance, warranties and guarantees for that part of the Work which will become binding upon Owner and Contractor at the time when Owner takes over such operation (unless they shall have otherwise agreed in writing and so informed Engineer). During such operation and prior to Substantial Completion of such part of the Work, Owner shall allow Contractor reasonable access to complete or correct items on said list and to complete other related Work.

Paragraph 14.07

In the tenth line of Paragraph 14.07(A)(1), insert the following after "documents,":

and Engineer has indicated that the Work is acceptable (subject to the provisions of Paragraph 14.09),

Revise Paragraph 14.07(C) to read as follows:

1. Payment under this paragraph shall be made in the time specified by MGL C. 30, § 39K.

Paragraph 14.10

Add Paragraph 14.10 as follows:

14.10 *Contractor's Continuing Obligation*. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. Neither: (i) recommendation of any progress of final payment by Engineer, (ii) the issuance of a certificate of Substantial Completion, (iii) any payment by Owner to Contractor under the Contract Documents, (iv) any use or occupancy of the Work or any part thereof by Owner, (v) any act of acceptance by Owner or any failure to do so, (vi) any review and approval of a Shop Drawing or sample submission, (vii) the issuance of a notice of acceptability by Engineer pursuant to Paragraph 14.07, nor (viii) any correction of defective Work by Owner will constitute an acceptance of Work not in accordance with the Contract Documents, or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents (except as provided in Paragraph 14.09).

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

Paragraph 15.01

Delete Paragraph 15.01(A) in its entirety and substitute the following:

Owner may, at any time and without cause order the Contractor in writing to suspend, delay, or interrupt all or any part of the work for such period of time as it may determine to be appropriate for the

convenience of the Owner; provided, however, that if there is a suspension, delay or interruption for fifteen days or more or due to a failure of the Owner to act within the time specified in this Contract, the Owner shall make an adjustment in the contract price for any increase in the cost of performance of this Contract but shall not include any profit to the general contractor on such increase; and provided further, that the Owner shall not make any adjustment in the contract price under this provision for any suspension, delay, interruption or failure to act to the extent that such is due to any cause for which this Contract provides for an equitable adjustment of the contract price under any other Contract provision.

Paragraph 15.02

In Paragraph 15.02(A)(1) line one, delete the word "persistant".

Insert the following after Subparagraph 15.02(A)(4) as Subparagraphs 15.02(A)(5) through 15.02(A)(9):

5. if Contractor commences a voluntary case under any chapter of the Bankruptcy Code (Title 11, United States Code), as now or hereafter in effect, or if Contractor takes any equivalent or similar action by filing a petition or otherwise under any other federal or state law in effect at such time relating to the bankruptcy or insolvency; or

6. if a petition is filed against Contractor under any chapter of the Bankruptcy Code as now or hereafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against Contractor under any other federal or state law in effect at the time relating to bankruptcy or insolvency; or

7. if Contractor makes a general assignment for the benefit of creditors; or

8. if a trustee, receiver, custodian or agent of Contractor is appointed under applicable law or under contract, whose appointment or authority to take charge of property of Contractor is for the purpose of enforcing a Lien against such property or for the purpose of general administration of such property for the benefit of Contractor's creditors; or

9. if Contractor admits in writing an inability to pay its debts generally as they become due.

Paragraph 15.03

In the third line of Paragraph 15.03(A), insert "abandon the Work and" after "elect to".

In the second line of Paragraph 15.03(A)(3), insert the word "reasonable" after the work "all".

Paragraph 15.04

Delete Paragraph 15.04 in its entirety.

ARTICLE 16 - DISPUTE RESOLUTION

Delete Paragraph 16.01 in its entirety and replace with the following:

16.01 All claims, disputes or other matters in controversy between the Contractor and the Owner relating to the execution and progress of the Work or the interpretation of the Contract Documents, which cannot be resolved by agreement between them, shall be referred to the Engineer in writing, with a copy to the other party, for determination. The Engineer shall afford both parties a reasonable

opportunity to present evidence in support of their respective positions. The Engineer shall render his decision in writing to each of the parties within a reasonable time.

16.02 No such claim, dispute or other matter shall constitute grounds for the Contractor to delay progress of the Work, and the Contractor shall carry on the Work and maintain its progress during consideration of any such claim, dispute or other matter by the Engineer. The decision of the Engineer with respect to any and all such claims, disputes or other matters in questions shall be final and conclusive, subject to the provisions of Paragraph 16.03 below.

16.03 The decision of the Engineer on any such claim, dispute or other matter in question shall be final and binding upon the Owner and the Contractor unless the Owner or the Contractor gives written notice to the other and to the Engineer of its objection to such decision within ten (10) days after receipt by such aggrieved party of the Engineer's decision.

16.04 In the event that either party is aggrieved by the decision of the ENGINEER, the dispute resolution procedures set forth below shall be followed:

A. The OWNER and CONTRACTOR intend to endeavor to resolve claims, disputes and other matters in question between them by negotiation and mediation which, unless the parties mutually agree otherwise, shall be in accordance with the Construction Industry Mediation Rules of the American Arbitration Association currently in effect. Request for mediation shall be filed in writing with the other party to this Contract and with the American Arbitration Association. Under no circumstances shall the Contractor have the right to stop the performance of the Work pending the resolution of a dispute between the parties.

B. The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in Boston, Massachusetts, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any Court having jurisdiction thereof.

C. If negotiation or mediation fail to bring about resolution, then, at the OWNER's sole discretion, any claim, dispute or other matter in question arising out of or related to this Contract shall be subject to arbitration.

D. If the OWNER in its sole discretion elects to arbitrate, such arbitration shall be in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association currently in effect. The demand for arbitration shall be filed in writing with the other party to this Contract and with the American Arbitration Association.

E. A demand for arbitration shall be made within reasonable time after the claim, dispute or other matter in question has arisen. In no event shall the demand for arbitration be made after the date when institution of legal or equitable proceedings based on such claim, dispute or other matter in question would be barred by the applicable statute of limitations.

F. The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with the applicable law in any court having jurisdiction thereof.

G. Arbitration, under this Contract, shall be consolidated with the arbitration proceedings between other parties if such arbitration proceedings arise out of the same transaction or relate to the same subject matter. Consolidation shall be by order of the arbitrator(s) in any pending case, or if the

arbitrator(s) fail to make an order, a party may apply to a court of competent jurisdiction for such order. Any arbitration proceeding shall take place in Boston, Massachusetts.

H. The CONTRACTOR will require each of its subcontractors to have a similar arbitration clause in their respective subcontract. The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity shall be specifically enforceable in accordance with applicable law in any court having jurisdiction thereof.

I. If the OWNER in its sole discretion declines to arbitrate, such claims, disputes and other matters shall be decided by a court of the Commonwealth of Massachusetts having jurisdiction thereof. This Contract shall be governed by the laws of the Commonwealth of Massachusetts.

J. Notwithstanding any provision contained in this Article or elsewhere in the Contract Documents, the OWNER reserves the following rights in connection with claims and disputes between the OWNER and the CONTRACTOR:

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

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

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

SUPPLEMENTARY CONDITIONS – PART II

Massachusetts Statutory Provisions For Public Construction Building Contracts

The following are statutory citations governing public construction building contracts in the Commonwealth of Massachusetts. Any other provisions required by statute to be included herein shall be deemed to be so included. In addition, the parties recognize that other rights, duties, and obligations with respect to public construction building contracts are provided for by statute, notwithstanding the fact that they are not provided for in the Contract Documents. The term, "Awarding Authority" referred to in the statutes shall mean "Owner" in the Contract Documents.

In case of conflict between:

*The provisions of these Supplementary Conditions-Part II – Massachusetts Statutory Provisions For Public Construction Building Contracts (hereinafter "Supp. Cond. Of MA Statutes") and

*other provisions in the Contract Documents,

the provisions of these Supp. Cond. of MA Statutes shall govern.

In case of conflict between:

*The provisions of these Supp. Cond. of MA Statutes and

*The provisions of any applicable statute,

the statutory provisions shall govern.

STATUATORY CITATIONS:

1. Massachusetts General Laws, Chapter 30, §39F.
2. Massachusetts General Laws, Chapter 30, §39H.
3. Massachusetts General Laws, Chapter 30, §39I.
4. Massachusetts General Laws, Chapter 30, §39J.
5. Massachusetts General Laws, Chapter 30, §39K.
6. Massachusetts General Laws, Chapter 30, §39L.
7. Massachusetts General Laws, Chapter 30, §39M(b).
8. Massachusetts General Laws, Chapter 30, §39N.
9. Massachusetts General Laws, Chapter 30, §39O.

10. Massachusetts General Laws, Chapter 30, §39P.

11. Massachusetts General Laws, Chapter 30, §39R.

12. Massachusetts General Laws, Chapter 149, §25-27.

13. Massachusetts General Laws, Chapter 149, §29, 30, 34, 34A, 34B.

14. Massachusetts General Laws, Chapter 149, §44F.

15. Massachusetts General Laws, Chapter 149, §129A.

16. Massachusetts General Laws, Chapter 149, §148.

EXCERPTS FROM MASSACHUSETTS STATUTES

1. Particular attention is directed to certain stipulations of Chapter 149 of the General Laws of Massachusetts as amended to date as follows which apply to this contract:

Section 25. "Every employee in public work shall lodge, board and trade where and with whom he elects; and no person or his agents or employees under contract with the Commonwealth, a county, city or town, or with a department, board, commission or officer acting therefore, for the doing of public work shall directly or indirectly require, as a condition of employment therein, that the employee shall lodge, board or trade at a particular place or with a particular person. This section shall be made a part of the contract for such employment.

Section 26. "In the employment of mechanics, teamsters, chauffeurs and laborers in the construction of public works by the Commonwealth, or by a county, city, town or district, or by persons contracting or subcontracting for such works, preference shall first be given to citizens of the Commonwealth who have been residents of the Commonwealth for at least six months at the commencement of their employment who are male veterans as defined in clause forty-third of section seven of chapter four, and who are qualified to perform the work to which the employment relates; and secondly, to citizens of the Commonwealth generally who have been residents of the Commonwealth for at least six months at the commencement of their employment, and if they cannot be obtained in sufficient numbers, then to citizens of the United States, and every contract for such work shall contain a provision to this effect..."

Section 34. "Every contract, except for the purchase of material or supplies, involving the employment of laborers, workmen, mechanics, foremen or inspectors, to which the Commonwealth or any county or any town, subject to section thirty, is a party, shall contain a stipulation that no laborer workman, mechanic, foreman or inspector working within the Commonwealth in the employ of the CONTRACTOR, Subcontractor or other persons doing or contracting to do the whole or a part of the work contemplated by the Contract, shall be required or permitted to work more than eight hours in any one day or more than forty-eight hours in any one week, except in cases of emergency, or, in case any town subject to section thirty-one is a party to such a contract, more than eight hours in any one day except as aforesaid..."

Section 34A. "Every contract for the construction, alteration, maintenance, repair or demolition of, or addition to, any public building or other public works for the Commonwealth or any political subdivision thereof shall contain stipulations requiring that the CONTRACTOR shall,

before commencing performance of such contract, provide by insurance for the payment of compensation and the furnishing of other benefits under chapter one hundred and fifty-two to all persons to be employed under the contract, and that the CONTRACTOR shall continue such insurance in full force and effect during the term of the contract. No officer or agent contracting in behalf of the Commonwealth or any political subdivision thereof shall award such a contract until he has been furnished with sufficient proof of compliance with the aforementioned stipulations. Failure to provide and continue in force such insurance as aforesaid shall be deemed a material breach of the contract and shall operate as an immediate termination thereof. No cancellation of such insurance, whether by the insurer or by the insured, shall be valid unless written notice thereof is given by the party proposed cancellation to the other party and to the officer or agent who awarded the contract at least fifteen days prior to the intended effected date thereof, which date shall be expressed in said notice. Notice of cancellation sent by the party proposing cancellation by registered mail, postage prepaid, with a return receipt of the addressee requested, shall be sufficient notice..."

Section 34B. "Every contract for the construction, alteration, maintenance, repair or demolition of, or addition to, any public works for the Commonwealth or any political subdivision thereof shall contain stipulations requiring that the CONTRACTOR shall pay to any reserve police officer employed by him in any city or town the prevailing rate of wage paid to regular police officers in such city or town."

Section 44F. (1) (a) Every contract subject to Chapter 149 section forty-four A shall include specifications and, if deemed necessary or convenient by the awarding authority, plans, detailing all labor and materials to be furnished thereunder. Such specifications shall have a separate section for each of the following classes of work if in the estimate of the awarding authority such class of work will exceed ten thousand dollars: (a) roofing and flashing; (b) metal windows; (c) waterproofing, damp-proofing and caulking; (d) miscellaneous and ornamental iron; (e) lathing and plastering; (f) acoustical tile; (g) marble; (h) tile; (i) terrazzo; (j) resilient floors; (k) glass and glazing; (l) painting; (m) plumbing; (n) heating, ventilating and air-conditioning; (o) electrical work, including direct electrical radiation for heating; (p) elevators; (q) masonry work; and (r) any other class of work for which the awarding authority deems it necessary or convenient to receive sub-bids, provided that the awarding authority may, in addition, receive a combined sub-bid on the marble, tile and terrazzo work, but in that event, the marble, tile and terrazzo work shall each be a class of work for which the sub-bidder must list the information in a clearly designated place on the bid form for that purpose. Each separate section in the specifications prescribed or provided for by this paragraph shall state the time limit for filing sub-bids with the awarding authority, shall specify by number each sheet of plans showing work to be done by the subcontractor under such section, and shall require the subcontractor to install all materials to be furnished by him under such section other than materials which in the opinion of the awarding authority it is not customary under then current trade practices for such subcontractor to install and the installation of which is expressly required by another section of the specifications. Each class of work set forth in a separate section of the specifications pursuant to this section shall be a sub-trade designated in the appropriate category of the general bid form and shall be the matter of sub-contract made on the basis of sub-bids in accordance with the procedure set forth in sections forty-four F(1)--(5).

Each separate section of the specifications required by the provisions of this section shall contain a paragraph describing by class of work and by reference to paragraph numbers in that section, each class of work, if any, requiring labor and materials which, in the opinion of the awarding authority based upon an investigation of the work involved, is customarily performed in that

sub-trade under subcontract with a sub-bidder for that sub-trade, and which is estimated by the awarding authority to cost in excess of ten thousand dollars, and only each class of work so described shall be a class of work for which sub-bidder for that sub-trade must list the information required in the appropriate place designated on the bid form for that purpose.

Every contract subject to Chapter 149 section forty-four A shall include specifications for the installation of weather protection and shall require that the general contractor shall install the same and that he shall furnish adequate heat in the area so protected during the months of November through March. Standards for such specifications shall be established by the commissioner of planning and operations in the executive office for administration and finance.

Section 44G. "(A) "Allowance" as used herein means a sum of money covering one or more items of labor or labor and materials which is designated in bid documents and which general bidders are required to use in computing their bids. The use of such allowances shall be prohibited in the award of any contract subject to the provisions of section forty-four A. Whenever the ENGINEER is unable to supply specifications for any item prior to the solicitation of bids, such item shall not be included in any contract subject to the provisions of section forty-four A. The Awarding Authority shall solicit bids for every such item separately pursuant to the provisions of section forty-four A after specifications for that item are prepared.

(B) Every alternate contained in the Form for General Bids shall be listed in a numerical sequence in order of priority. When the Awarding Authority decides to consider alternates in determining the lowest eligible and responsible bidder, the awarding authority shall consider the alternates in descending numerical sequence, such that no single alternate shall be considered unless every alternate preceding it on the list has been added to or subtracted from the base bid price.

(C) The use of options other than alternates in bid documents or bid forms subject to section forty-four A shall be prohibited under all circumstances.

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

Section 44J. "(1) No public agency or authority of the Commonwealth or any political subdivision thereof shall award any contract for which competitive bids are required pursuant to section forty-four A of this chapter or section thirty-nine M of chapter thirty, or for which competitive proposals are required pursuant to subsection (4) of section forty-four E of this chapter or section eleven C of chapter twenty-five A, unless a notice inviting bids or proposals therefor shall have been posted no less than one week prior to the time specified in such notice for the receipt of said bids or proposals in a conspicuous place in or near the offices of the awarding authority, and shall have remained posted until the time so specified, and unless such notice shall also have been published at least once not less than two weeks prior to the time so specified in the central register published by the secretary of state pursuant to section twenty A of chapter nine and in a newspaper of general circulation in the locality of the proposed project. Said notice shall also be published at such other times and in such other newspapers or trade periodicals as the commissioner of capital planning and operations may require, having regard to the locality of the work involved.

"(2) Said notice shall specify the time and place where plans and specifications of the proposed work may be had; the time and place of submission of general bids; and the time and place for opening of the general bids. For contracts subject to the provisions of sections forty-four A to H, inclusive, of this chapter, said notice shall also specify the time and place for submission of filed sub-bids, where required pursuant to section forty-four F; and the time and place for opening of said filed sub-bids.

"Said notice shall also provide sufficient facts concerning the nature and scope of such project, the type and elements of construction, and such other information as will assist applicants in deciding to bid on such contract.

"(3) No contract or preliminary plans and specifications shall be split or divided for the purpose of evading the provisions of this section.

"(4) General bids and filed sub-bids for any contract subject to this section shall be in writing and shall be opened in public at the time and place specified in the posted or published notice, and after being so opened shall be open to public inspection.

"(5) The provisions of this section shall not apply to any transaction between the Commonwealth and any public service corporation.

"(6) The provisions of this section may be waived in cases of extreme emergency involving the health and safety of the people and their property, upon the written approval of said commissioner. The written approval shall contain a description of the circumstances and the reasons for the commissioner's determination.

"(7) Whoever violates any provision of this section shall be punished by a fine of not more than ten thousand dollars or by imprisonment in the state prison for not more than three years or in a jail or house of correction for not more than two and one-half years, or by both said fine and imprisonment; and in the event of final conviction, said person shall be incapable of holding any office of honor, trust or profit under the Commonwealth or under any county, district of municipal agency.

"Each and every person who shall cause or conspire to cause any contract or preliminary plans and specifications to be split or divided for the purpose of evading the provisions of this section shall forfeit and pay to the Commonwealth, a political subdivision thereof or other awarding authority subject to this section, the sum of not more than five thousand dollars and, in addition, such person or persons shall pay, apportioned among them, double the amount of damages which the Commonwealth or political subdivision thereof or other awarding authority may have sustained by reason of the doing of such act, together with the costs of the action.

"(8) If an awarding authority rejects all general bids or does not receive any general bids, and advertises for a second opening of general bids with the original filed sub-bids as set forth in subsection (1) of section forty-four E the notice for receipt of such general bids may be published in the central register and elsewhere as required not less than one week prior to the time specified for such second opening of general bids. "

2. Particular attention is also directed to Chapter 774 of the Acts of 1972 amending Section 39F of Chapter 30 which applies to this contract and which reads as follows:

Section 39F. "1. Every contract awarded shall contain the following subparagraphs (a) through (h) and in each case those subparagraphs shall be binding between the General Contractor and each Subcontractor.

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

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

c. Each payment made by the Awarding Authority to the General Contractor pursuant to subparagraphs (a) and (b) of this paragraph for the labor performed and the materials furnished by a Subcontractor shall be made to the General Contractor for the account of that Subcontractor; and the Awarding Authority shall take reasonable steps to compel the General Contractor to make each such payment to each such Subcontractor. If the Awarding Authority has received a demand for direct payment from a Subcontractor for any amount which has already been included in a payment to the General Contractor or which is to be included in a payment to the General Contractor for payment to the Subcontractor as provided in subparagraphs (a) and (b), the Awarding Authority shall act upon the demand as provided in this section.

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

detailed breakdown of the balance due under the subcontract including any amount due for extra labor and materials furnished to the General Contractor and of the amount due for each claim made by the General Contractor against the Subcontractor.

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

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

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

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

3. Particular attention is directed to stipulations of Chapter 30, Section 39I, which applies to this Contract.

Section 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 awarding authority or by the engineer or architect in charge of the work who is duly authorized by the awarding authority to approve such deviations. In order to avoid delays in the prosecution of the work required by such contract such deviation from the plans or specifications may be authorized by a written order of the awarding authority or such engineer or architect so authorized to approve such deviation. Within thirty days thereafter, such written order shall be confirmed by a certificate of the awarding authority 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 reasons for such deviation, giving justification therefor; (2) that the specified deviation does not materially injure 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 contracting agency and the CONTRACTOR and the amount in dollars of said adjustment; and (4) that the deviation is in the best interest of the contracting authority.

"Such certificate shall be signed under the penalties of perjury and shall be a permanent part of the file record of the work contracted for.

"Whoever violates any provision of this section willfully and with intent to defraud shall be punished by a fine of not more than five thousand dollars or by imprisonment for not more than six months, or both."

Section 39J. "Notwithstanding any contrary provision of any contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building or public works by the Commonwealth, or by any county, city, town, district, board, commission or other public body, when the amount of the contract is more than five thousand dollars in the case of the Commonwealth and more than two thousand dollars in the case of any county, city, town, district, board, commission or other public body, a decision, by the contracting body or by any administrative board, official or agency, or by any architect or engineer, on a dispute, whether of fact or of law, arising under said contract shall not be final or conclusive if such decision is made in bad faith, fraudulently, capriciously, or arbitrarily is unsupported by substantial evidence, or is based upon error of law. "

4. Particular attention is, directed to stipulations of chapter 30, Section 39K, which applies to this Contract.

Every contract for the construction, reconstruction, alteration, remodeling, repair or demolition of any public building by the Commonwealth, or by any county, city, town, district, board, commission or other public body, when the amount is more than five thousand dollars in the case of the Commonwealth and more than two thousand dollars in the case of any county, city, town, district, board, commission or other public body, shall contain the following paragraph: - Within fifteen days (twenty-four days in the case of the Commonwealth) after receipt from the CONTRACTOR, at the place designated by the awarding authority if such a place is so designated, of a periodic estimate requesting payment of the amount due for the preceding month, the awarding authority will make periodic payment to the CONTRACTOR for the work performed during the preceding month and for the materials not incorporated in the work but delivered and suitably stored at the site (or at some location agreed upon in writing) to which the CONTRACTOR has title or to which a Subcontractor has title and has authorized the

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

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

All periodic estimates shall be submitted to the awarding authority, or its designee as set forth in writing to the CONTRACTOR, and the date of receipt by the awarding authority or its designee shall be marked on the estimate. All periodic estimates shall contain a separate item for each filed sub-trade and a column listing the amount paid to each filed Subcontractor as of the date the periodic estimate is filed. The person making payment for the awarding authority shall add the daily interest provided for herein to each payment for each day beyond the due date based on the date of receipt marked on the estimate.

A certificate of the architect to the effect that the CONTRACTOR has fully or substantially completed the work shall, subject to the provisions of section thirty-nine J, be conclusive for the purposes of this section.

5. Particular attention is directed to the stipulation of Chapter 30, Section 39L, which applies to this Contract.

Section 39L. The Commonwealth and every county, city, town, district, board, commission or other public body which, as the Awarding Authority, requests proposals, bids or sub-bids for any work in the construction, reconstruction, alteration, remodeling, repair or demolition of any public building or other public works (1) shall not enter into a contract for such work with, and shall not approve as a Subcontractor furnishing labor and materials for a part of any such work, a foreign corporation which has not filed with such Awarding Authority a certificate of the state secretary stating that such corporation has complied with sections three and five of chapter one hundred and eighty-one and the date of such compliance, and (2) shall report to the state secretary and to the department of corporations and taxation any foreign corporation performing work under such contract or subcontract, and any other person, other than a corporation, performing work under such contract or subcontract, and residing or having a principal place of business outside the Commonwealth.

Section 39M. "(b) Specifications for such contracts, and specifications for contracts awarded pursuant to the provisions of said sections forty-four A to forty-four L of said chapter one hundred and forty-nine, shall be written to provide for full competition for each item of material to be furnished under the contract; except, however, that said specifications may be otherwise written for sound reasons in the public interest stated in writing in the public records of the awarding authority or promptly given in writing by the awarding authority to anyone making a written request therefor, in either instance such writing to be prepared after reasonable investigation. Every such contract shall provide that an item equal to that named or described in the said specifications may be furnished; and an item shall be considered equal to the item so named or described if (1) it is at least equal in quality, durability, appearance, strength and design, (2) it will perform at least equally the function imposed by the general design for the public work being contracted for or the material being purchased, and (3) it conforms substantially, even with deviations, to the detailed requirements for the item in the said specifications. For each item of material the specifications shall provide for either a minimum of three named brands of material or a description of material which can be met by a minimum of three manufacturers or producers, and for the equal of any one of said named or described materials. "

6. Attention is also directed to Chapter 774 of the Acts of 1972 further amending Chapter 30 by adding after Section 39M the following section:

Section 39N. "Every contract subject to section forty-four A of chapter one hundred and forty-nine or subject to section thirty-nine M of chapter thirty shall contain the following paragraph in its entirety and an Awarding Authority may adopt reasonable rules or regulations in conformity with that paragraph concerning the filing investigation and settlement of such claims:

"If, during the progress of the work, the CONTRACTOR or the Awarding Authority discovers that the actual subsurface or latent physical conditions encountered at the site differ substantially or materially from those shown on the plans or indicated in the contract documents either the CONTRACTOR or the contracting authority may request an equitable adjustment in the contract

price of the contract applying to work affected by the differing site conditions. A request for such an adjustment shall be in writing and shall be delivered by the party making such claim to the other party as soon as possible after such conditions are discovered. Upon receipt of such a claim from a CONTRACTOR, or upon its own initiative, the Awarding Authority shall make an investigation of such physical conditions, and if they differ substantially or materially from those shown on the plans or indicated in the contract documents or from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the plans and contract documents and are of such a nature as to cause an increase or decrease in the cost 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 Awarding Authority shall make an equitable adjustment in the contract price and the contract shall be modified in writing accordingly."

7. Attention is also directed to Chapter 1164 of the Acts of 1973 further amending Chapter 30 by adding after Section 39N the following two sections:

Section 39O. "Every contract subject to the provisions of section thirty-nine M of this chapter or subject to section forty-four A of chapter one hundred forty-nine shall contain the following provisions (a) and (b) in their entirety and, in the event a suspension, delay, interruption or failure to act of the Awarding Authority increases the cost of performance to any Subcontractor, that Subcontractor shall have the same rights against the General Contractor for payment for an increase in the cost of his performance as provisions (a) and (b) give the General Contractor against the Awarding Authority, but nothing in provisions (a) and (b) shall in any way change, modify or alter other rights which the General Contractor or the Subcontractor may have against each other.

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

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

Section 39P. "Every contract subject to section thirty-nine M of this chapter or section forty-four A of chapter one hundred forty-nine which requires the Awarding Authority, any official, its architect or engineer to make a decision on interpretation of the specifications, approval of equipment, material or any other approval, or progress of the work, shall require that the decision be made promptly and in any event, no later than thirty days after the written

submission for decision; but if such decision requires extended investigation and study, the Awarding Authority, the official, architect or engineer shall, within thirty days after the receipt of the submission, give the party making the submission written notice of the reasons why the decision cannot be made within the thirty day period and the date by which the decision will be made."

Section 39Q. "(1) Every contract awarded by any state agency as defined by section thirty-nine A of chapter seven for the construction, reconstruction, alteration, remodeling, repair or demolition of any capital facility as defined by the aforesaid section thirty-nine A shall contain the following subparagraphs (a) through (d) in their entirety:

"(a) Disputes regarding changes in and interpretations of the terms or scope of the contract and denials of or failures to act upon claims for payment for extra work or materials shall be resolved according to the following procedures, which shall constitute the exclusive method for resolving such disputes. Written notice of the matter in dispute shall be submitted promptly by the claimant to the chief executive official of the state agency which awarded the contract or his designee. No person or business entity having a contract with a state agency shall delay, suspend, or curtail performance under that contract as a result of any dispute subject to this section. Any disputed order, decision or action by the agency or its authorized representative shall be fully performed or complied with pending resolution of the dispute.

"(b) Within thirty days of submission of the dispute to the chief executive official of the state agency or his designee, he shall issue a written decision stating the reasons therefor, and shall notify the parties of their right of appeal under this section. If the official or his designee is unable to issue a decision within thirty days, he shall notify the parties to the dispute in writing of the reasons why a decision cannot be issued within thirty days and of the date by which the decision shall issue. Failure to issue a decision within the thirty-day period or within the additional time period specified in such written notice shall be deemed to constitute a denial of the claim and shall authorize resort to the appeal procedure described below. The decision of the chief executive official or his designee shall be final and conclusive unless an appeal is taken as provided below.

"(c) Within twenty-one calendar days of the receipt of a written decision or of the failure to issue a decision as stated in the preceding subparagraph, any aggrieved party may file a notice of claim for an adjudicatory hearing with the division of hearing officers or the aggrieved party may file an action directly in a court of competent jurisdiction and shall serve copies thereof upon all other parties in the form and manner prescribed by the rules governing the conduct of adjudicatory proceedings of the division of hearing officers. In the event an aggrieved party exercises his option to file an action directly in court as provided in the previous sentence, the twenty-one day period shall not apply to such filing and the period of filing such action shall be the same period otherwise applicable for filing a civil action in superior court. The appeal shall be referred to a hearing officer experienced in construction law and shall be prosecuted in accordance with the formal rules of procedure for the conduct of adjudicatory hearings of the division of hearing officers, except as provided below. The hearing officer shall issue a final decision as expeditiously as possible, but in no event more than one hundred and twenty calendar days after conclusion of the adjudicatory hearing, unless the decision is delayed by a request for extension of time for filing post-hearing briefs or other submissions assented to by all parties. Whenever, because an extension of time has been granted, the hearing officer is unable to issue a decision within one hundred and twenty days, he shall notify all parties of the reasons for the delay and the date when the decision will issue. Failure to issue a decision within

the one hundred and twenty-day period or within the additional period specified in such written notice shall give the petitioner the right to pursue any legal remedies available to him without further delay.

"(d) When the amount in dispute is less than ten thousand dollars, a CONTRACTOR who is party to the dispute may elect to submit the appeal to a hearing officer experienced in construction law for expedited hearing in accordance with the informal rules of practice and procedure of the division of hearing officers. An expedited hearing under this subparagraph shall be available at the sole option of the CONTRACTOR. The hearing officer shall issue a decision no later than sixty days following the conclusion of any hearing conducted pursuant to this subparagraph. The hearing officer's decision shall be final and conclusive, and shall not be set aside except in cases of fraud.

"(2) The commissioner of administration shall require the division of hearings officers to prepare annually a report concerning the construction contract claims submitted to the division during the preceding twelve months, in such form as the commissioner shall prescribe. The report shall contain, at a minimum, the following information: the number of claims submitted; the names of all parties to each such claim; a brief description of the claim; the date of submission and of disposition of the claim; its disposition, whether by settlement, withdrawal, default or written decision; and the number of claims currently pending. The original of the report shall be submitted to the commissioner of administration by January fifteenth, and a copy shall be filed with the state librarian and shall be a public document.

8. Particular attention is directed to stipulations of Chapter 30, Section 39R, which applies to this Contract.

Section 39R. "(a) The words defined herein shall have the meaning stated below whenever they appear in this section:

(1) "CONTRACTOR" means any person, corporation, partnership, joint venture, sole proprietorship, or other entity awarded a contract pursuant to section thirty-nine M of chapter thirty, sections forty-four A through H, inclusive, of chapter one hundred and forty-nine and sections thirty B through thirty P, inclusive, of chapter seven.

(2) "Contract" means any contract awarded or executed pursuant to sections thirty B through thirty P, inclusive, of chapter seven and any contract awarded or executed pursuant to section thirty-nine M of chapter thirty, or sections forty-four A through H, inclusive, of chapter one hundred and forty-nine, which is for an amount or estimated amount greater than one hundred thousand dollars.

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

(4) "Independent Certified Public Accountant" means a person duly registered in good standing and entitled to practice as a certified public accountant under the laws of the place of his/her residence or principal office and who is in fact independent. In determining whether an accountant is independent with respect to a particular person, appropriate consideration should be given to all relationships between the accountant and that person or any affiliate thereof.

Determination of an accountant's independence shall not be confined to the relationships existing in connection with the filing of reports with the Awarding Authority.

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

(6) "Accountant's Report," when used in regard to financial statements, means a document in which an independent certified public accountant indicates the scope of the audit which s/he has made and sets forth his/her opinion regarding the financial statements taken as a whole with a listing of noted exceptions and qualifications, or an assertion to the effect that an overall opinion cannot be expressed. When an overall opinion cannot be expressed the reason therefor shall be stated. An accountant's report shall include as a part thereof a disclosed all material facts to the independent certified public accountant, and that the audited financial statement is a true and complete statement of the financial condition of the CONTRACTOR.

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

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

(b) Subsection (a)(2) hereof notwithstanding, every agreement or contract awarded or executed pursuant to sections thirty B through thirty P, inclusive, of chapter seven, and pursuant to section thirty-nine M of chapter thirty or to section forty-four A through H, inclusive, of chapter one hundred and forty-nine, shall provide that:

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

(2) until the expiration of six years after final payment, the Awarding Authority, office of inspector general, and the deputy commissioner of capital planning and operations shall have the right to examine any books, documents, papers or records of the CONTRACTOR or of his/her Subcontractors that directly pertain to, and involve transactions relating to, the CONTRACTOR or his/her Subcontractors, and

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

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

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

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

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

(2) transactions are recorded as necessary (i) to permit preparation of financial statements in conformity with generally accepted accounting principles, and (ii) to maintain accountability for assets;

(3) access to assets is permitted only in accordance with management's general or specific authorization; and

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

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

(1) whether the representations of management in response to this paragraph and paragraph (b) above are consistent with the result of management's evaluation of the system of internal accounting controls; and

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

(e) Every CONTRACTOR awarded a contract by the Commonwealth or by any political subdivision thereof shall annually file with the Awarding Authority during the term of the contract a financial statement prepared by an independent certified public accountant on the basis of an audit by such accountant. The final statement filed shall include the date of final payment. All statements shall be accompanied by an accountant's report.

(f) The office of inspector general, the deputy commissioner for capital planning and operations and any other Awarding Authority shall enforce the provisions of this section. The deputy commissioner of capital planning and operations may after providing an opportunity for the inspector general and other interested parties to comment, promulgate pursuant to the provisions of chapter thirty A such rules, regulations and guidelines as are necessary to effectuate the purposes of this section. Such rules, regulations and guidelines may be applicable to all awarding authorities. A CONTRACTOR's failure to satisfy any of the requirements of this section may be grounds for disqualification pursuant to section forty-four C of chapter one hundred and forty-nine.

9. Particular attention is directed to Chapter 82, Section 40, which applies to this contract.

Section 40. "No person shall, except in an emergency, contract for, or make an excavation, which shall include, but not be limited to, the discharge of explosives and the demolition of any structure but which shall not be deemed to include gardening or tilling the soil in the case of privately owned land, in any public way, any public utility company right of way or easement, or any privately owned land under which any public utility company, municipal utility department, natural gas pipeline company, or cable television company maintains underground facilities, including pipes, mains, wires or conduits, unless at least seventy-two hours, exclusive of Saturdays, Sundays and legal holidays, but not more than thirty days, before the proposed excavation is to be made such person has given an initial notice in writing of the proposed excavation to such natural gas pipeline companies, public utility companies, cable television companies and municipal utility departments as supply gas, electricity, telephone or cable television service in or to the city or town where such excavation is to be made. Such notice shall set forth the name of the street or the route number of said way and a reasonably accurate description of the location in said way or on private property the excavation is to be made. In addition, such initial notice shall indicate whether any such excavation will involve blasting and, if so, the date on which the specific location at which such blasting is to occur; provided, however, that in no event shall any excavation by blasting take place unless written notice thereof, either in the initial notice or a subsequent notice, accurately specifying the date and location of such blasting shall have been given and received at least twenty-four hours in advance, except in the case of an unanticipated obstruction requiring blasting when such notice should not be less than four hours in advance to such natural gas pipeline companies, public utility companies, cable television companies and municipal utility departments as supply gas, electricity, telephone or cable television services in or to the city or town where such excavation by blasting is to be made. If any such notice cannot be given as aforesaid because of an emergency, it shall be given as soon as may be practicable. Copies of such notices together with a statement certifying that they have been mailed or delivered to such cable television companies and public utility companies as required by this section shall be filed with the officer or board having charge of any such public way before a permit to excavate or to blast may be approved or issued, except in case of an emergency.

"Where an excavation is to be made by a CONTRACTOR as part of the work required by a contract with the Commonwealth or with any political subdivision thereof or other public agency, for the construction, reconstruction, relocation or improvement of a public way or for the installation of a railway track, conduit, sewer or water main, such CONTRACTOR shall be deemed to have complied with the requirements of this section by giving such notices as required by this section setting forth the location and the approximate time required to perform the work involved to each of said companies.

"Within seventy-two hours, exclusive of Saturdays, Sundays and legal holidays, from the time said initial notice is received or at such time as said company and the excavator agree in writing, said company shall respond to the original written notice or to subsequent oral or written notice by designating at the locus, the location of pipes, mains, wires or conduits, in that portion of the public way, public utility company right-of-way or easement or privately owned land in which the excavation is to be made; provided, however, that in the event that the excavator has given notice of proposed excavation as aforesaid at a locus at which because of its length or size the company cannot reasonably designate the location of all such pipes, mains, wires or conduits within such seventy-two hour period, then the excavator shall notify the company of the portion of the locus in which excavation is to be first made and the company shall designate the location

of such pipes, mains, wires or conduits in such portion within seventy-two hours and shall designate the location of the pipes, mains, wires or conduits in the remaining portion of the locus within a reasonable time thereafter; and the providing of such designation by the company shall constitute prima facie evidence of an exercise of reasonable precaution by the company as required by this section. After a company has designated the location of such pipes, mains, wires and conduits at the locus of the excavation in accordance with the provisions of this section, the excavator shall be responsible for maintaining the designation markings at such locus, unless the said excavator requests re-marking at the locus due to the obliteration, destruction or other removal of such markings and the company shall then have twenty-four hours following the receipt of such request to re-mark such locus.

"Any such excavation shall be performed in such manner, and such reasonable precautions taken to avoid damage to the pipes, mains, wires or conduits in use under the surface of said public way, public utility company right-of-way or easement, or privately owned land, including, but not limited to, any substantial weakening of structural or lateral support of such pipe, main, wire, or conduit, penetration or destruction of any pipe, main, wire or the protective coating thereof, or the severance of any pipe, main or conduit.

"When any damage of any such pipe, main, wire or conduit or its protective coating occurs, the public utility company, natural gas pipeline company, cable television company or municipal utility department shall be notified immediately by the person or public agency responsible for the excavation causing the damage.

"The making of an excavation without providing any or all notice or notices required by this section with respect to any proposed excavation which results in any damage to a pipe, main, wire or conduit or its protective coating shall be prima facie evidence in any legal or administrative proceeding that such damage was caused by the negligence of such person.

"Notice to the public utility underground plant damage prevention system pursuant to section seventy-six D of chapter one hundred and sixty-four, which notice is given during normal business hours each day of the year exclusive of Saturdays, Sundays and legal holidays, and which notice is given with the time periods established in this section, shall constitute compliance with the written notice requirements of this section.

Nothing contained in this section shall be construed to affect or impair local ordinances or by-laws requiring permits to be obtained before excavation in a public way, except that, notwithstanding any contrary provision of local ordinances or by-laws, no permit to excavate in a public way shall be approved or issued by the officer or board having charge of any such way, except in any emergency, until such time as copies of such notices to public utility companies and cable television companies are filed with said officer or board by the applicant for a permit as required by this section and copies of such notices are served by said officer or board upon the appropriate water and sewer department.

"Any person, CONTRACTOR or company found by the department of telecommunications and energy, after a hearing, to have violated any provision of this section shall forfeit to the Commonwealth the sum of two hundred dollars for the first offense and not less than five hundred nor more than one thousand dollars for any subsequent offense. "

END OF SECTION

Section 08100
SPECIAL MDOT PROVISIONS

BREWER'S CORNER AND VICINITY PEDESTRIAN ACCESS & TRAFFIC MANAGEMENT IMPROVEMENT PROJECT

QUINCY, MASSACHUSETTS

CONFORMANCE OF WORK

All work done under this Contract shall be in conformance with the Massachusetts Department of Transportation - Highway Division's (Formally Massachusetts Highway Department) STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES dated 1988, the SUPPLEMENTAL SPECIFICATIONS dated February 25, 2010, the STANDARD SPECIAL PROVISIONS dated August 27, 2010, the 2003 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, the 2010 CONSTRUCTION STANDARD DETAILS, the 1990 STANDARD DRAWING FOR SIGNS AND SUPPORTS, the 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, THE AMERICAN STANDARD NURSERY STOCK (ANSI Z60.1-1986) the PLANS and these TECHNICAL SPECIFICATIONS.

DEFINITIONS

For the purposes of these Technical Specifications, the following terms shall be defined as follows:

- The "Owner" shall mean the person or entity identified as such in the Owner-Contractor Agreement.
- The "Engineer" and "Design Engineer" shall mean Woodard & Curran, 980 Washington Street, Suite 325, Dedham, MA 02026 telephone (781) 251-0200; fax (781) 251-0847 and its subconsultant MDM Transportation Consultants, Inc., 28 Lord Road, Suite 280, Marlborough, MA 01752; telephone (508) 303-0370; fax (508) 303-0371.
- The "Department" and ""MassDOT" shall mean the Massachusetts Department of Transportation - Highway Division.
- The "County" shall mean Norfolk County.
- The "Municipality" shall mean the City of Quincy, the local government in which the Contract work is to be performed.

EXAMINATION OF PLANS AND THE LOCATIONS (Supplementing Subsection 2.03 of the 1988 Standard Specifications)

The plans for this Contract have been prepared in part from an on the ground instrument field survey, utility company plans and other available sources.

The accuracy and/or precision of this information are not guaranteed to be correct. Accordingly, it is the responsibility of the Contractor to verify all measurements and features of the project area by his own investigation and research.

GUARANTEE AFTER FINAL ACCEPTANCE (Supplementing Section 2.13)

The Contractor shall, at his own expense, replace any work performed under this Contract found to be defective in workmanship, material, or manner of functioning within twelve (12) months from date of final acceptance of all the installations under this Contract.

CONCURRENT WORK BY OTHERS WITHIN PROJECT LIMITS (Supplementing Section 5.06)

Concurrent work may be in progress in the project area by the County, the local municipality, by utility companies, by another Contractor hired by the Owner, or by other Contractors hired by private parties. The Contractor is required to coordinate his activities with these parties.

No additional payments will be allowed for any disruption of work schedule caused by or required coordinating work in this Contract with work to be performed by others, as described above or which may be encountered during the prosecution of the work.

CONSTRUCTION STAKINGS (Supplementing Subsection 5.07)

It will be the Contractor's responsibility to provide survey control and construction stakes for grading, alignment, drainage, etc. to allow for proper prosecution of the proposed work. Control stakes for horizontal and vertical alignment (line and grade) of curbing, edging, catch basins, manhole, traffic signal foundations, headwalls, gutterline and centerline grades at 50 stations, low points, top and bottom of slope and at other complicated locations shall be provided. The Contractor shall furnish and set, at his/her own expense, all stakes (such as batter boards, slope stakes, pins, offset stakes, etc.) required for the construction operations and he shall be solely responsible for the accuracy of the line and grade of all features of his/her work.

The Contractor shall be held responsible for the preservation of all stakes and marks. If any of such stakes or marks are disturbed or destroyed the cost of replacing them shall be at the Contractor's expense.

All survey work will be in accordance with MassDOT standards and done by a licensed professional surveyor registered in the Commonwealth of Massachusetts. The cost of survey work shall be deemed to be included in the Contract Lump Sum Bid Price and no additional payment shall be made therefore.

COOPERATION OF THE CONTRACTOR (Supplementing Subsections 5.05 and 5.06)

Agents of various public service agencies, municipal and State Departments and private site Contractors may be entering the work site to remove existing utilities, construct or place new utilities or make alterations to existing utilities.

The Contractor shall perform the work in cooperation with the various agencies in a manner which causes the least interference with the operations of the aforementioned agencies and shall have no claim for delay which may be due to or result from said work of these agents.

INSPECTION OF WORK (Supplementing Subsection 5.09)

For the purpose of observing work that affects their respective properties, inspectors for the Department, municipality, public agencies, and the utility companies shall be permitted access to the work, but all official orders and directives to the Contractor will be issued by the Owner.

PUBLIC SAFETY AND CONVENIENCE (Supplementing Subsection 7.09)

The Contractor's attention is directed to his responsibility to maintain safe conditions for pedestrians and Contractor's personnel, as well as vehicular traffic. This responsibility shall be the Contractor's, regardless of his compliance with these Technical Specifications concerning Prosecution of the Work, Maintenance of Traffic, Construction Detouring and Phasing.

The Contractor's attention is also directed to the fact that the work on this project is to be performed on streets that are used by pedestrians as well as vehicles. He shall furnish, install, maintain, and move all warning devices, barricades, signs, slow-moving vehicle emblems, bridging materials, special apparel, and other safety measures and controls deemed necessary by the Engineer for the protection of motorists, pedestrians, and his own personnel. All automotive equipment, not protected by traffic cones or plastic drums, that is working on a public way under this project, shall have one amber flashing warning light mounted on the cab roof or on the highest practical point of the machinery visible to both oncoming and overtaking vehicles, at least 32 candlepower and 50-60 flashes per minute. This light shall be in operation while the equipment is working or traveling in the work area at a speed of less than 25 mph, and a slow moving vehicle emblem shall also be displayed.

Construction equipment shall not be parked within any traveled way unless said equipment is adequately lighted and protected by safety devices and vehicular traffic is appropriately detoured. Appropriate MUTCD requirements shall apply.

The Contractor shall be responsible for the maintenance of flow in all gutters, water pipes, drains and other pipes affected by the work. There shall be no diversion, flooding, or other flow that will cause hindrance to this or other work, or cause nuisance or hazard of any kind.

NOTICE TO OWNERS OF UTILITIES (Supplementing Subsection 7.13)

Written notice shall be given by the Contractor to all public service corporations or municipal and state officials, owning or having charge of publicly or privately owned utilities, of the Contactor’s intention to commence operations affecting such utilities at least one week in advance of the commencement of such operations, and the Contractor shall, at that time, file a copy of such notice with the Engineer.

Before the Contractor begins any work or operations that might damage any subsurface structures, he shall carefully locate all such structures and conduct his operations so as to avoid any damage to them.

It is the Contractor's responsibility to provide adequate notice to all public and private utilities that may be affected by the construction of the project. In addition, the Contractor shall contact the electric utility servicing the affected area prior to the start of work to obtain any and all construction requirements and standards as deemed necessary by the utility for prosecution of the work. The Contractor shall be responsible for the coordination of all utilities to be adjusted, relocated and/or removed.

The Contractor shall notify "Massachusetts DIG SAFE" and procure a DIG SAFE number 72 hours prior to disturbing existing ground in any way. DIG SAFE Call Center 1-888-344-7233

WORK IN THE IMMEDIATE VICINITY OF UNDERGROUND STRUCTURES AND UTILITY POLES

For overhead connections, the Electric Company servicing the area will make the connection from the top of the riser on the utility pole to the power source. The Contractor shall supply all labor, materials and equipment to install the service connection, complete in place and in accordance with the Electric Company procedures, from the controller to and including the riser with enough wire coiled above the riser to permit the Electric Company servicing the area to make the final connection.

For underground connections, the Electric Company servicing the area will perform the actual wiring of the service connections from its power source to the sweep at the local controllers, but all sweeps, ducts, entrance holes into manholes, patching and all other necessary labor, materials and equipment required to install the electric service, complete in place, shall be furnished by the Contractor.

The Contractor shall pay all costs associated by the Electric Company for their services rendered for the connection of overhead and underground service connections.

No work is to be performed in the immediate vicinity of the Electric Company manholes or utility poles, or the local Telephone Company manholes or utility poles or conduit system without prior notice (at least 48 hours) to the affected company.

Before starting any work at existing manholes, the Contractor shall test for gas and blow out the manholes.

WORK PERFORMED BY OTHERS

Relocation and/or resetting to new grades of all private utilities, including utility poles, made necessary by the construction of this project, will be accomplished by the prospective utility companies and the cost, including all permits and fees, shall be included in the total bid price of the Contract. The Contractor shall coordinate the relocation of all private utilities with the private utility companies on behalf of the Owner.

ORDERING OF MATERIALS AND DRAWINGS

The Contractor shall provide the Engineer, within ten (10) days of receipt of the Contract, written evidence that:

1. He has ordered the shop drawings for the materials for which shop drawings are required to complete the work on the subject Contract.

2. He has ordered from a supplier or manufacturer, pre-cast concrete catch basins and manholes, catch basin frames and grates, manhole frames and covers and other castings necessary to complete the project.

The Contractor shall submit shop drawings for all signal supports, a list of equipment, and manufacturer's equipment specifications to the Engineer in accordance with the relevant provisions of Section 815.20. The Contractor will submit shop drawings and long hand calculations stamped by a Massachusetts Registered Structural Engineer for all mast arm assemblies. All traffic signal equipment must be on the most current MassDOT Traffic Signal Approved Equipment List.

The Contractor shall further provide the Engineer written evidence within 30 days of receipt of the Contract that these orders have been confirmed in writing by the manufacturer with delivery dates appropriate for timely completion of the project. These confirmations of orders will become part of the project records.

Failure to comply with any of the ordering requirements shall nullify a request for extension of the project completion date as a consequence of late delivery of traffic signal control devices or castings.

PROCEDURES FOR TRAFFIC SIGNAL SHOP DRAWINGS

The Municipality will have final approval for all traffic signal equipment.

Shop drawings are required for signal heads and back plates, mounting hardware, loop detector cable and sealant, mast arms (including long hand calculations with deflection listed), traffic signal bases and poles, pedestrian signals and buttons, traffic signal cable, electrical conduit, pull box and casting covers, controllers and all equipment housed within the controller cabinets, including load switches, amplifiers, conflict monitors, special logic boards, relays, etc

FINE TUNING, ADJUSTMENT, AND TESTING PERIOD

After the Contractor has finished installing the controller and all other associated signal equipment and after the Contractor has set the signal equipment to operate as specified in the Contract documents, the fine tuning, adjusting and testing period shall begin. The Contractor shall advise the Engineer and Department, in writing, of the date of the beginning of the fine-tuning and testing period. This testing period shall not start until the work at the intersections is complete. During this period, the Contractor, under the direction of the Engineer, shall make necessary adjustments and tests to insure the safe and efficient operation of the equipment. This period shall last for a minimum of 30 days and the Contract completion date has taken this testing period into consideration. No request for final acceptance will be considered until successful completion of the testing period.

In the event of failure during this test period, the Contractor shall repair or replace the malfunctioning parts or equipment, or faulty workmanship, regardless of the cause, within twenty-four (24) hours after having been notified by the Engineer. Upon correcting failures caused by defective equipment, material, or faulty workmanship to the satisfaction of the Engineer, the thirty (30) day test period shall begin anew.

The Contractor shall notify the Department and Design Engineer in writing of the start date of fine tuning period prior to the actual starting date.

The Contractor shall provide the Engineer with the name and telephone number of the person to be notified in the event of failures or malfunctions during the test period.

The cost of electrical energy consumed by the operation of traffic signals during the construction, fine tuning and testing of the traffic signals will be borne by the Contractor.

QUALIFIED TRAFFIC SIGNAL CONTRACTORS AND ELECTRICIANS

The Traffic Signal Sub-Contractor, through the Prime Contractor, shall submit a list of the Journeyman Electricians (Massachusetts License) along with copies of their licenses, who will perform the electrical work within this project. Journeymen performing electrical work on traffic signals must be certified by I.M.S.A. with a LEVEL II or higher certification in Traffic Signal Technicians. In addition, the Contractor shall be pre-qualified by MassDOT in the categories of Traffic Signals and Lighting & Electrical and have a minimum single contract bonding limit of one million dollars ($1,000,000) or greater for each said category. A copy of the Journeyman License, IMSA certification and MassDOT prequalification letter shall be submitted to the Municipality, Owner and Engineer. The Contractor shall submit all required materials within ten (10) days after awarding of the bid.

FLASHING OPERATION

Changes from flashing to stop-and-go to flashing operation shall occur as set forth in Sections 4D.11 and 4D.12 of the MUTCD.

SERVICE CONNECTIONS

The Contractor shall be responsible for the payment of all fees for services and permits rendered in conjunction with service connections by companies under this project. The cost thereof shall be included in the contract lump sum price of the Traffic Signal Controls listed in the proposal.

GUARANTEE AFTER FINAL ACCEPTANCE

The Contractor shall diagnose (trouble-shoot) the system and, at his own expense replace any part of the traffic signal control equipment found to be defective in workmanship, material or manner of functioning within twelve months from date of the Certificate of Substantial Completion for this Contract. This requirement does not affect the one-year warranty period on equipment specified in Subsection 815.20 of the Standard Specifications.

Upon the date of the Certificate of Substantial Completion for the project by the Municipality, the Contractor shall turn over all guarantees and warranties to the Municipality or the Department, where applicable.

MAINTENANCE OF TRAFFIC SIGNALS

The Contractor shall provide all labor, equipment and materials required for total maintenance and emergency repairs of all existing and proposed permanent traffic signal control equipment, within the project limits, including damage by automobile accidents, unless otherwise specified under Subsection 7.17 "Traffic Accommodation" of the MHD Standard Specifications, as amended, in which case Subsection 7.17 will govern. These provisions will apply to all signalized locations included as part of the Contract on the day that the Contractor will commence work on the project, until the date of acceptance of the completed project from the Municipality. This written notice must be given before the Contractor may proceed with any work on a specified traffic signal system. For the purpose of these paragraphs, the phrase "Traffic Signal Control Equipment" is intended to include, but not limited to, controllers, detectors, signal housing, support structures, cabinets, wires, conduit and all other auxiliary electrical equipment used for traffic control. In the event of damage caused by automobile accidents, the Contractor shall replace all damaged material with new material. The Contractor, installing the traffic signal equipment, will be required to service and maintain the traffic signal controllers and associated equipment, on a 24-hour basis, including Sundays and Holidays.

No separate payment will be made for maintenance of existing installation, and the removal and stacking of existing traffic signal equipment, including relocating the existing signal equipment to new foundations as a temporary setup.

No other Contractor will be allowed to service the traffic signal equipment other than the Contractor who installed the traffic signal equipment until the Certificate of Final Completion is issued by the Municipality. If the Contractor fails to provide maintenance to the traffic signal equipment during the duration of the project, the Municipality has the right to dispatch their traffic signal Contractor and bill the Contracting Contractor for payment of parts and labor. A reasonable time frame for repairs shall not exceed 24 hours.

The cost of maintenance of signals shall be deemed to be included in the various traffic signal Contract items and no additional payments will be made, except as provided under Subsection 7.17.

PROTECTION OF UTILITIES AND PROPERTY (Supplementing Subsection 7.13)

The Contractor, in constructing or installing facilities alongside or near sewers, drains, water or gas pipes, electric or telephone conduits, poles, sidewalks, walls or other structures shall, at his expense, sustain them securely in place, cooperating with the officers and agents of the various utility companies and municipal departments which control them, so that the services of these structures shall be maintained. He shall also be responsible for the repair or replacement, at his own expense, of any damage to such structures caused by his acts or neglect, and shall leave them in the same condition as they existed prior to the commencement of work. In case of damage to utilities, the Contractor shall immediately notify the owner and shall, if requested by the Engineer, furnish laborers to work temporarily under the owner's direction in providing access to the utility. Pipes or other structures damaged by the operation of the Contractor may be repaired by MassDOT or local municipality or by the utility company that suffers the loss. The cost of such repairs shall be borne by the Contractor, without compensation therefore. It shall be the sole responsibility of the Contractor to repair the damage to municipally owned utilities and not the Owner, the Department or the Municipality.

If, as the work progresses, it is found that any of the utility structures are so placed as to render it impracticable, in the judgment of the Engineer, to do the work called for under this Contract, the Contractor shall protect and maintain the services in such utilities and structures and the County, or the Owner, will, as soon thereafter as it reasonably can, cause the position of the utilities to be changed or take such other action as it deems suitable and proper.

If live service connections are to be interrupted by excavations of any kind, the Contractor shall not break the service until new services are provided. Abandoned services shall be plugged off or otherwise made secure.

MATERIALS AND EQUIPMENT REMOVED AND STACKED (Supplementing Subsections 580.64 and 815.65)

All materials removed within the roadway shall be delivered to the Quincy DPW Storage Yard, 55 Sea Street or as directed by the Municipality or Engineer. If the Engineer or the Municipality determines that any part of the stacked materials is unsuitable for re-use, and if the Owner decides to abandon part or all of such materials, said materials shall become the property of the Contractor and he shall dispose of them outside and away from the limits of the project, without additional compensation.

MAINTENANCE OF TRAFFIC

Traffic shall be continuously maintained on the various streets during construction. Work on this Contract may require work to be scheduled to one side of streets and intersections at a time, allowing for one lane of continuous traffic movement in each direction.

CONSTRUCTION SAFETY

It shall also be a requirement of this Contract that the Contractor shall supply to his personnel and require that they wear safety vests while working in or near the roadways of this project. The cost of furnishing such vests shall be included in the prices bid for the various items, and all such vests shall remain the property of the Contractor.

TRAFFIC OFFICERS

The Contractor shall furnish police services as required to direct traffic on existing roadways where traffic is maintained.

The Contractor shall provide such police officers as may be deemed necessary by either the Engineer or the Municipality for the direction and control of all traffic traveling within and through the project area. The police officers shall be obtained from the Quincy police department, as applicable. Police officers shall be paid by the Contractor at the established prevailing wage rate.

The cost for police services is included in the Bid Form as a separate line item allowance.

PERMITS AND FEES

The Owner shall be responsible for obtaining approvals for construction from the Municipality and MassDOT. The Contractor shall be responsible for obtaining and coordinating all other permits and shall pay any and all fees associated with these permits, including those of public utilities and private utilities companies. All costs associated with the relocation, modification, and/or adjustment of any public and/or private utilities shall be included to the Contract Lump Sum Bid Price.

LOCAL INSPECTION

One or more inspectors may be assigned by the Municipality to oversee construction of the work shown on the Plans, and shall have the authority to govern the work shown on the Plans. However, any directives from the Municipality that result in an increase in quantities or the addition of new items that were not contemplated in the contract shall be issued through the Owner and Engineer. The Municipality's authority over inspection shall be as governed in MassDOT's 1988 Standard Specifications for these roadways.

PROPERTY ACCESS (Supplementing Subsections 8.02 and 8.06)

The Contractor should note that the work is located in a predominantly residential section of the municipality. As such, the Contractor shall provide and maintain access at all times to all properties abutting the work. Safe and ready means of ingress and egress to all residential properties and business in the project area, both day and night, shall be provided for the duration of the project.

SAWCUTS

Sawcuts shall be made in existing pavement at limits of full depth construction, box widening, around existing castings, in areas shown on the Plans, and as directed by the Engineer.

CONCRETE FOUNDATIONS

Concrete foundations of items to be removed, if not interfering with the proposed construction, may be abandoned in place with written approval by the Engineer. Foundations left in place under the roadway surface shall be removed to a depth of three (3'-0") feet below the finished grade; all other foundations left in place shall be removed to a depth of six (6") inches below the finished grade. The top six (6") inches shall be restored to match the existing grade with materials similar in kind to the abutting materials.

TEMPORARY PAVEMENT MARKINGS

The Contractor shall include the cost of providing all temporary pavement markings as may be necessary or as directed by the Engineer in the Contract Lump Sum Bid Price.

SUPPLEMENTARY CONDITIONS - PART II

ARTICLE 1 STATUTORY REQUIREMENTS IN GENERAL

1.1 The Contractor shall keep himself fully informed of all existing and future State and Federal Laws and Municipal Ordinances and Regulations in any manner affecting those engaged or employed in the work or in any way affecting the conduct of the work, and of all such orders and decrees of bodies or tribunals having jurisdiction or authority over same and of all provisions required by law to be made a part of this contract, all of which provisions are hereby incorporated by reference and made a part thereof. If any discrepancy or inconsistency is discovered in the drawings or specifications or contract documents for this work in relation to any such law, ordinance, regulation, order or decree, he shall forthwith report the same to the Engineer in writing. He shall at all times himself observe and comply with, and shall cause all his agents and employees to observe and comply with, all such existing and future laws, ordinances, regulations, orders and decrees; and he shall protect and indemnify the City and Engineer and all of its and their officers, agents and servants against any claim of liability arising from or based on the violation of any such law, ordinance, regulation, order or decree, whether by himself or his employees or sub-contractors.

1.2 All materials furnished and work done are to comply with all State, Federal and local laws and regulations.

1.3 All applicable laws, ordinances, and rules and regulations of all authorities having jurisdiction over the construction of the project shall apply to the contract throughout.

ARTICLE 2 DELETED

ARTICLE 3 DELETED

ARTICLE 4 SAFETY AND HEALTH REGULATIONS

4.1 The Successful Bidder shall comply with the Department of Labor Safety and Health Regulations for Construction promulgated under the Occupational Safety and Health Act of 1970 (PS-91-569) and under Section 107 of the Contract Work Hours and Safety Standards Act (PL-91-54).

4.2 This project is subject to the Safety and Health Regulations of the Massachusetts Department of Labor and Industries, Division of Industrial Safety "Rules and Regulations for the Prevention of Accidents in Construction Operations (Chapter

454 CMR, 10.0 et. seq.)".

4.3 This project is subject to all of the Safety and Health Regulations (CFR, Part 1926, and all subsequent amendments) as promulgated by the U.S. Department of Labor on June 24, 1974 and CFR 29, Part 1910, General Industry Safety and Health Regulations Identified as Applicable to Construction.

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

4.5 All excavations within public or private ways are subject to the requirements of the Massachusetts General Law, Acts of 1983, Chapter 353, included in Part II of the Supplementary Conditions.

ARTICLE 5 PERMITS AND LICENSES

5.1 Deleted

5.2 The Contractor shall procure all permits and licenses required, pay all charges and fees therefore, and shall give all notices necessary and incidental to the due and lawful prosecution of the Project. The cost thereof shall be included n the prices bid for the various items listed in the proposal.

The permits shall also include all building and other permits required for his equipment, work force or particular operations (such as blasting or local street opening permits), in the performance of the work.

ARTICLE 6 CHANGE ORDERS

6.1 Change Orders will be completed by the Contractor using the form enclosed on the following page. The City will **not** accept any other form as a substitute.

(continued on next page)

1305 Hancock Street, Quincy, MA 02169

Phone #: 376-1060
Fax #: 376-1074

CHANGE ORDER/AMENDMENT # _____

f in Quintuplicate this day(DATE) _____ between the City of Quincy, Massachusetts, a
fu. ipal Corporation, within the County of Norfolk, Party of the first part and:(print name & address of Company below)

arty of the second part.

VITNESSETH: That for and in consideration of the following mutual covenants contained herein the parties agree to amend Contract #_____ of the City of Quincy, dated _____ between the same parties as follows:

ARTICLE I: In Article I, we are INCREASING/DECREASING the Contract by $_____ because:(LIST BELOW REASON)
Justification:_____

_____

ARTICLE II: In Article II of the Contract for (SPECIFY COMMODITY)_____

between the same parties, strike out the words and figures $_____

_____
AMOUNT IN WORDS

and substitute the words and figures $_____

_____
AMOUNT IN WORDS

VITNESS:

CITY OF QUINCY

_____
WITNESS(CITY OF QUINCY)

_____
MAYOR

ufficient funds are available to cover this
ontract in the account to be charged.

_____
CITY SOLICITOR

_____
CITY AUDITOR

_____
PURCHASING AGENT

_____
VENDOR SIGNATURE

DEPT:_____

P. O. #:_____

_____
COMMISSIONER OF PUBLIC WORKS

CODE:_____

ARTICLE 7

SUPPLEMENTARY CONDITIONS - COMMONWEALTH OF MASSACHUSETTS

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SUPPLEMENTARY CONDITIONS - COMMONWEALTH OF MASSACHUSETTS

SUB-ARTICLE 1. METHOD OF PAYING SUBCONTRACTORS
(General Laws: Chapter 30, Section 39F, as most recently amended by Chapter 579 of the Acts of 1980).

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

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

(b) No later than the sixty-five days after each subcontractor substantially completes his work in accordance with the plans and specifications, the entire balance due under the subcontract less amounts retained by the awarding authority as the estimated cost of completing the incomplete and unsatisfactory items of work, shall be due the subcontractor; and the awarding authority shall pay that amount to the general contractor. The general contractor shall forthwith pay to the subcontractor the full amount received from the awarding authority less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the subcontractor by the general contractor.

(c) Each payment made by the awarding authority to the general contractor pursuant to subparagraphs (a) and (b) of this paragraph for the labor performed and the materials furnished by a subcontractor shall be made to the general contractor for the account of that subcontractor' and the awarding authority shall take reasonable steps to compel the general contractor to make each such payment to each such subcontractor. If the awarding authority has received a demand for a direct payment from a subcontractor for any amount which has already been included in a payment to the general contractor or which is to be included in included in a payment to the general contractor for payment to the subcontractor as provided in subparagraphs (a) and (b), the awarding authority shall act upon the demand as provided in this section.

(d) If, within seventy days after the subcontractor has substantially completed the subcontract work, the subcontractor has not received from the general contractor the balance due under the subcontract including any amount due for extra labor and materials

furnished to the general contractor, less any amount retained by the awarding authority as the estimated cost of completing the incomplete and unsatisfactory items of work, the subcontractor may demand by a sworn statement delivered to or sent by certified mail to the awarding authority, and a copy shall be delivered to or sent by certified mail to the general contractor at the same time. The demand shall contain a detailed breakdown of the balance due under the subcontract and also a statement of the status of completion of the subcontract work. Any demand made after substantial completion of the subcontract work shall be valid even if delivered or mailed prior to the seventieth day after the subcontractor has substantially completed the subcontract work. Within ten days after the subcontractor has delivered or so mailed the demand to the awarding authority and delivered or so mailed a copy to the general contractor, the general contractor may reply to the demand.

The reply shall be by a sworn statement delivered to or sent by certified mail to the awarding authority and a copy shall be delivered to or sent by certified mail to the subcontractor at the same time. The reply shall contain a detailed breakdown of the balance due under the subcontract including any amount due for extra labor and materials furnished to the general contractor and of the amount due for each claim made by the general contractor against the subcontractor.

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

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

(g) All direct payments and all deductions for direct payments deposited in an interest-bearing bank account for accounts in a bank pursuant to subparagraph (f) shall be made out of amount payable to the general contractor at the time of receipt of a demand for direct payment from a subcontractor and out of amounts which later become payable to the general contractor and in the order of receipt of such demands from subcontractors. All direct payments shall discharge the obligation of the awarding authority to the general contractor to the extent of the such payment.

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

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

SUB-ARTICLE 2: COMPLETION OF PUBLIC WORKS: SEMI-FINAL AND FINAL ESTIMATES
PAYMENTS: EXTRA WORK: DISPUTED ITEMS

(General Laws, Chapter 30, Section 39G, as most recently amended by Chapter 460 of the Acts of 1978.)

Upon substantial completion of the work required by a contract with the Commonwealth, or any agency or political subdivision thereof, for the construction, reconstruction, alteration, remodeling, repair or improvement of public ways, including bridges, and other highway structures, sewers and watermains, airports and other public works, the contractor shall present to the contractor either a written declaration that the unsatisfactory work items required by the contract sufficient to demonstrate that the work has not been substantially completed. The awarding authority may include with such a list a notice setting forth a reasonable time, which shall not in any event be prior to the contract completion date, within which the contractor must achieve substantial completion of the work. In the event that the awarding authority fails to respond, by presentation of

a written declaration or itemized list as aforesaid, to the contractor's certification within the twenty-one day period the contractor's certification shall take effect as the awarding authority's declaration that the work has been substantially completed.

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

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

Within fifteen days after the effective date of the declaration of substantial completion, the awarding authority shall send to the contractor by certified mail, return receipt requested, a complete list of all incomplete or unsatisfactory work items, and, unless delayed by causes beyond his control, the contractor shall complete all such work items within forty-five days after the receipt of such list or before the then contract completion date, whichever is later. If the contractor fails to complete such work within such time, the awarding authority may, subsequent to seven days' written notice to the contractor by certified mail, return receipt requested, terminate the contract and complete the incomplete or unsatisfactory work items and charge the cost of same to the contractor.

Within thirty days after receipt by the awarding authority of a notice from the contractor stating that all of the work required by the contract has been completed, the awarding authority shall prepare and forthwith send to the contractor for acceptance a final estimate for the quantity and price of the work done and all retainage on that work less all payments made to date, unless the awarding authority's inspection shows that work items

required by the contract remain incomplete or unsatisfactory, or that documentation required by the contract has not been complete. If the awarding authority fails to prepare and send to the contractor the final estimate within thirty days after receipt of notice of completion, the awarding authority shall pay to the contractor interest on the amount which would have been due to the contractor pursuant to such final estimate at the rate hereinabove provided from the thirtieth day after such completion until the date on which the awarding authority sends the final estimate to the contractor for acceptance or the date of payment therefore, whichever occurs first, provided that the awarding authority's inspection whose that not work items required by the contract remain for which interest is required to be paid in connection with the substantial completion estimate as hereinabove provided. The awarding authority shall include the amount of the interest required to be paid hereunder in the final estimate.

The awarding authority shall pay the amount due pursuant to any periodic substantial or final estimate within thirty-five days after receipt of written acceptance for such estimate form the contractor and shall pay interest in the amount due pursuant to such estimate at the rate hereinabove provided from that thirty-fifty day to the date of payment. In the case of periodic payment, the contracting authority may deduct from its payment a retention based on its estimate of the fair value of its claims against the contractor, a retention for direct payments to subcontractors based on demand for same in accordance with the provisions of section thirty-nine F, and a retention to secure satisfactory performance of the contractual work not exceeding five percent of the approved amount of any periodic payment, and the same right to retention shall apply to bonded subcontractors entitled to direct payment under section thirty-nine F of chapter thirty, provided, that a five percent value of all items that are planted in the ground shall be deducted from the periodic payments until final acceptance.

No periodic, substantial completion or final estimate or acceptance or payment thereof shall bar a contractor from reserving all rights to dispute the quantity and amount of, or the failure of the awarding authority to approve a quantity and amount of, all or part of any work item or extra work item.

Substantial completion, for the purposes of this section, shall mean either that the work required by the contract has been completed except for work having a contract price of less than one percent of the then adjusted total contract price, or substantially all of the work has been completed and opened to public used except for minor incomplete or unsatisfactory work items that doe not materially impair the usefulness of the work required by the contract.

SUB-ARTICLE 3: CLAIMS FOR UNFORESEEN CONDITIONS

(General Laws, Chapter 30, Section 29N, as most recently amended by Chapter 774 of the Acts of 1972.)

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

If, during the progress of the work, the contractor or awarding authority discovers that the actual sub-surface or latent physical conditions encountered at the site differ substantially or materially from those shown on the plans or indicated in the contract documents either the contractor or the contracting authority may request an equitable adjustment in the contract price of the contract applying to work affected by the differing site conditions. A request for such an adjustment shall be in writing and shall make an investigation of such physical conditions, and, if they differ substantially or materially from those shown on the plans or indicated int he contract documents or from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the plans and contract documents and are of such a nature as to cause an increase or decrease in the cost of performance of the work or a change in the construction methods required for the performance of the work which results in an increase or decrease in the cost of the work, the contracting authority shall make an equitable adjustment in the contract price and the contract shall be modified in writing accordingly.

SUB-ARTICLE 4: CLAIMS FOR DELAY
(General laws, Chapter 30, Section 390, as added by Chapter 116 of the Acts of 1973).

Every contract subject to the provisions of section thirty nine M of this chapter or subject ot section forty-four A of chapter one hundred forty-nine shall contain the following provisions (a) and (b) in their entirety and, in the event a suspension, delay, interruption or failure toact of the awarding authority increases the cost of performance to any subcontract, that subcontractor shall have the ame rights against the general contractor for payment for an increase in the cost of his performance as provisions (a) and (b) give the general contractor agaist the awarding authority, but nothing in provisions (a) and (b) shall in any way change, modify or alter any other rights which the general contractor or the subcontractor may have against each other.

(a) The awarding authority may order the general contractor in wirting to suspend, delay, or interrupt all or any part of the work for such period of time as it may determine to be appropriate for the convenience of the awarding authority: provided, however, that if there is a suspension, delay, or interruption for fifteen days or maore or due to a failure of the awarding authority to act within the time specified in the contract, the awarding authority shall made an adjustment in the contract price for any increase in the cost of performance of this contract but shall not include any profit to the general contractor on such increase and provided further, that the awarding authority shall not make any ajdustment in the contract price under this provision for any suspension, delay,

interruption, or failure to act to the extent that such is due to any cause for which this contract provides for an equitable adjustment of the contract price under any other contract provisions.

(b) The general contractor must submit the amount of a claim under provision (a) to the awarding authority in writing, as soon as practicable after the end of the suspension, delay, interruption or failure to act, and in any event, no later than the date of final payment under this contract and, except for costs due to suspension order, the awarding authority shall not approve any costs in the claim incurred more than twiety days before the general contractor notified the awarding authority in writing of the act of fialure to act involved in the claim.

SUB-ARTICLE 5. DECISIONS AND APPROVALS BY THE ENGINEER OR ARCHITECT
(Mass. General Law, Chapter 30, Section 39P, as added by Chapter 116 of the Acts of 1973.)

Every contract subject to section thirty-nine M of this chapter or section forty-four A of chapter one hundred forty-nine, which requires the awardign authority, any official, its architect or engineer to make a decision on interpretations of the specifications, approval of equipment, materials 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 days after the written submission for decision; but if such decision requires extended investigation and study, the awarding authority, the official, architect or engineer shall, within thirty days after receipt of the submission, give the party making the submission written notice of the reasons why the decision cannot be made within the thirty day period and the date by which the decision will be made.

SUB-ARTICLE 6. PREFERENCE IN EMPLOYMENT

DELETED

SUB-ARTICLE 7. HOURS OF WORK
(Mass. General Laws, chpater 149, Section 34, as most recently amended by Chapter 680 of the Acts of 1947.)

Every contract, except for the purchase of material or supplies involving the employment of laborers, workmen, mechanics, foremen or inspectors, to which the Commonwealth or any county or town, subject to section thirty, is a party, shall contain a stipulation that no laborer, workman, mechanic, foreman or inspector working within the Commonwealth, in the employ of the contractor, subcontractoror other person doing or contracting to do the whole or a part of the work contemplated by the contract, shall be required or permitted to work more than eight hours in any one day or more than forty-eight hours in any one week, or more than six days in any one week, except in case of

emergency or in case any town subject to section thrity-one is a party to such a contract, more than eight hours in any one day, except as aforesaid, provided that in contracts entered in to by the Department of Public Works for the construction or reconstruction of highways there may be inserted in said stipulation a provision that said department, or any contractor or subcontractor for said department, any employ laborers, workmen, mechanics, foremen and inspectors for more than eight hours in any one day in such construction or reconstruction when, in the opinion of the Commissioner of Labor and Industries, public necessity so requires. Every such contract not containing the aforesaid stipulation shall be null and void.

SUB-ARTICLE 8. WORK BY FOREIGN CORPORATIONS

(Mass. General Laws, Chapter 30, Section 39L, Public Construction Work by Foreign Corporations, Restrictions and Reports)

The Commonwealth and every county, city, town, district, board, commission or other public body which, as the awarding authority, requests proposals, bids or sub-bids for any work in the construction, reconstruction, alteration, remodeling, repair or demolition of any public building or other public works (1) shall not enter into a contract for such work with, and shall not approve as a subcontractor furnishing labor and materials for a part of any such work, a foreign corporation which has not filed with such awarding authority a certificate of the state secretary stating that such corporation has complied with sections three and five of chapter one hundred and eighty-one and the date of such compliance, and (2) shall report to the state secretary and to the department of corporations and taxation any foreign corporation performing work under such contract or subcontract, and residing or having a principal place of business outside the Commonwealth.

SUB-ARTICLE 9. REQUIREMENTS OF THE PREVAILING WAGE LAW

I. GENERAL

1. Awarding authorities must fill out a Prevailing Wage Rate Request Form and mail it to the Department of Labor and Industries for each project going out to bid. Do not use rates that you may have on file, or from similar projects or from neighboring cities and towns.

2. The Department strives to process all Prevailing Wage Rate Requests within one business day of receipt. Once you have received the wage rates, it is your obligation to make them available to all prospective bidders.

3. The Prevailing Wage Rates shall become part of the contract signed between the low bidder and awarding authority or the contract shall be invalid.

4. Prevailing Wages must be paid to all persons employed on the public works project, regardless of whether they are employed by the low bidder or a subcontractor. The wage rates issued for each project shall be the rates paid for the entire project.

5. Payroll records must be kept for all persons employed on the project. A separate Statement of Compliance must be submitted to the Department of Labor and Industries by every employer, including all prime contractors and subcontractors, when its portion of the work is completed. The enclosed form (see Appendix A) entitled "Weekly Payroll Records Report & Statement of Compliance" clearly details these requirements.

6. Once prevailing wages have been issued for a project, the bid opening must occur within 90 days or the Prevailing Wages become invalid. If the bid opening does not occur within 90 days, the awarding authority shall once again request rates for the project.

7. If the awarding authorities have any questions regarding the Prevailing Wage Law, please reference the enclosed copy of Massachusetts General Law, c.149, s. 26 and 27. Additional questions may be directed to the Director of the Division of Occupational Statistics at (617) 727-3492.

II. MASSACHUSETTS GENERAL LAWS, Chapter 149, Section 26

1. Section 26. In the employment of mechanics and apprentices, teamsters, chauffeurs and laborers in the construction of public works by the Commonwealth, or by a county, town or district, or by persons contracting or subcontracting for such works, preference shall first be given to citizens of the Commonwealth who have been residents of the Commonwealth for at least six months at the commencement of their employment who are male veterans as defined in clause forty-three of Section seven of chapter four, and who are qualified to perform the work to which the employment relates, and secondly, to citizens of the Commonwealth generally who have been residents of the Commonwealth for at least six months at the commencement of their employment, and if they cannot be obtained in sufficient numbers, then to citizens of the United States, and every contract for such work shall contain a provision to this effect. Each county, town, or district in the construction of public works, or persons contracting or sub-contracting for such works, shall give preference to veterans and citizens who are residents of such county, town or district. The rate per hour of the wages paid to said mechanics and apprentices, teamsters, chauffeurs and laborers in the construction of public works shall not be less than the rate or rates of wages to be determined by the commissioner as hereinafter provided; provided, that the wages paid to laborers employed on said works shall not be less than those paid to laborers in the municipal service of the town or towns where said works are being constructed; provided further, that where the same public work is to be constructed in two or more towns, the wages paid to laborers shall not be less than those paid to laborers in the municipal service to the town paying the highest rate; provided, further that if, in any of the towns where the works are to be constructed, a wage rate or wage rates have been established in certain trades and occupations by collective agreements or understandings the rate or rates to be paid on said works shall not be less than the rates so established; provided further, that in towns where no such rate or rates have been so established, the wages paid to mechanics, teamsters, chauffeurs and laborers on public works, shall not be less than the wages paid to the employees in the same trades and occupations by private employers engaged in the construction industry. This section shall also apply to regular employees of the Commonwealth or of a county, town or district, when such employees are employed in the construction, addition to or alteration or public buildings for which special appropriations or more than one thousand dollars are provided. Payments by employers to health and welfare plans, pension plans and supplementary unemployment benefit plans under collective bargaining agreements or understandings between organized labor and employers shall be included for the purpose of establishing minimum wage rates as herein provided. Permanent and

temporary laborers employed by the State Department of Public Works and by the Metropolitan District Commission shall receive such salary or compensation as may be fixed under and in accordance with Sections Forty-five to Fifty, inclusive of Chapter 30.

Massachusetts General Laws, Chapter 149, Section 27

2. Section 27. The Commissioner shall prepare, for the use of such public officials or public bodies whose duty it shall be to cause public works to be constructed, a list of the several jobs usually performed on various types of public works upon which mechanics and apprentices, teamsters, chauffeurs and laborers are employed, including the transportation of gravel or fill to the site of said public works or the removal of surplus gravel or full from such site. The commissioner shall classify said jobs, and he may revise such classification from time to time, as he may deem advisable. Prior to awarding public body shall submit to the commissioner a list of the jobs upon which mechanics and apprentices, teamsters, chauffeurs and laborers are to be employed, and shall request the commissioner to determine the rate of wages to be paid on each job. Said rates shall apply to all persons engaged in transporting gravel or fill from such site, regardless of whether such persons are employed by a contractor or subcontractor or are independent contractors or owner-operators. The commissioner, subject to the provisions of section twenty-six, shall proceed forthwith to determine the same, and shall furnish said official or public body with a schedule of such rate or rates of wages as soon as said determination shall have been made. In advertising or calling for bids for said works, the awarding official or public body shall incorporate said schedule in the advertisement or call for bids by an appropriate reference thereto, and shall furnish a copy of said schedule, without cost, to any person requesting the same. Said schedule shall be made a part of the contract for said works and shall continue to be the minimum rate or rates of wages for said employees during the life of the contract. Any person engaged in the construction of said works shall cause a legible copy of said schedule to be kept posted in a conspicuous place at the site or said works during the life of the contract. The aforesaid rates of wages in the schedule of wage rates shall include payments by employers to healths and welfare plans, pension plans and supplementary unemployment benefit plans as provided in said section twenty-six, and such payment shall be considered as payments to persons under this section performing work as herein provided. Any employer engaged in the construction of such works who does not make payments to a health and welfare plan, a pension plan and a supplementary unemployment benefit plan, where such payments are included in said rates of wages, shall pay the amount of said payments directly to each employee engaged in said construction. Whoever shall pay less than said rate or rates of wages, including

payments to health and welfare funds and pension funds, or the equivalent payment in wages, on said works to any person performing work within classifications as determined by the commissioner, and whoever, for himself, or as representative, agent or officer or any other, shall take or receive for his own use or the use of any other person, as a rebate, refund, or gratuity, or in any other guise, any part or portion of the wages, including payments to health and welfare funds and pension funds, or the equivalent payment in wages, paid to any such person for work done or service rendered on said public works, shall be punished by a fine of not more than ten thousand dollars.

Offers of restitution or payment or restitution shall not be considered in imposing such punishment.

III. **POLICY STATEMENT - APPLICABILITY OF PREDETERMINED WAGE RATES TO TEAMSTERS WHO PARTICIPATE IN THE ON-SITE INSTALLATION OF THE MATERIALS BEING DELIVERED:** DATED June 26, 1993

SIGNED BY: Thomas F. Dengenis, Commissioner
Department of Labor & Industries
Commonwealth of Massachusetts

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1. **BACKGROUND**: The Department of Labor and Industries (DLI) enforces the Commonwealth's predetermined wage rate law, commonly known as the "prevailing wage" law. the prevailing wage law applies to all state and local public works construction in the Commonwealth. The Commissioner of the Department of Labor and Industries (The Commissioner) is required to set a wage rate for all mechanics and apprentices, teamsters, chauffeurs and laborers employed "in the construction of public works" and "on said works".

   This policy statement will define when the predetermined wage must be paid to teamsters who participate in the on-site installation of the materials being delivered, including but not limited to, teamsters who are hauling and applying bituminous concrete or ready-mix concrete, and teamsters who are hauling and installing jersey barriers, on highway, road and other construction projects in the Commonwealth, excluding teamsters who only haul to and from the site.

2. **AUTHORITY:** This policy is based on Massachusetts General Law, Chapter 149, Sections 26, 27 and 27A through F, the Department's historical enforcement of the statute, and on the Supreme Judicial Court's decision in Construction Industries of Massachusetts v. Commissioner of Labor and Industries, 546 N.E. 2d 367, 406 Mass. 162 (1989)

3. **SCOPE OF APPLICATION:** This policy applies to all teamsters who participate in on-site installation of materials being delivered to state and local public works construction sites.

4. **DEFINITIONS:** "Bituminous concrete" is in general a mixture of fine sand and stone held together by a heavy crude oil which acts as glue. Bituminous concrete is generally referred to as asphalt. It ranges from coarse to fine depending on the size of the stone used in its manufacture. Several layers of bituminous concrete are used in the construction of roads and highways. These range from very coarse consistency in the lower levels to a fine layer on top. Sometimes an old road surface is ripped up, transported to the manufacturing plant and reprocessed, and then reapplied to the site. See C.I.M. v. Commissioner. Bituminous Concrete, for

the purpose of enforcing this policy, "bituminous concrete" and "asphalt" are identical terms, and may be used interchangeably.

"Ready-Mix Concrete" is in general a mixture of sand, gravel, portland cement and water, and is delivered to the job site for immediate unloading and installation.

"Jersey barrier" is a device constructed of concrete and mortar, used to restrict traffic and access to highways, roads and other public ways and is often delivered, unloaded and installed by the driver involved.

5. **POLICY:** Any teamster who is engaged in the hauling of materials to a public works project located in the Commonwealth of Massachusetts must be paid the wage rate determined by the commissioner pursuant to M.G.L. c. 149, § 26, at all times when the teamster is engaged in activity that has a significant nexus or connection to the construction project.

A. SIGNIFICANT NEXUS OR CONNECTION

There is a significant nexus to the project beginning when the truck driver reports for the first duty of the day and commences work related to the project, whether the driver goes to the site first, or whether the driver picks up the first load of materials before the first appearance at the job site.

There is a significant nexus to the project when the truck driver is responsible for and all inclusive of the delivery, unloading, and installation of the materials carried at the project site.

If a truck breaks down while engaged on the project, the wage rate must be paid for the time the driver is required to spend waiting for repairs and the repair itself, but not if the truck is reporting to the site for the first time or making its final return from the site.

The significant nexus to the project ends when the driver leaves the site for the last time on any given day, whether the driver returns home or to some other work-related location including non-public works projects.

B. WORK IN VARYING CLASSIFICATIONS

The wage rate for a teamster must be paid for all time the driver is driving the truck as defined above. If the driver leaves the truck to manually rake or otherwise spread the asphalt, or to engage in other labor that is not related to driving the truck, the worker is engaged in a different job classification for which the Commissioner has set a wage rate. In the event the teamster is

engaged in a different classification for more than one hour during one given day, the employee must be paid the wage rate appropriate for that classification. All required recordkeeping is the requirement of the employer.

C. TRUE AND ACCURATE PAYROLL RECORDS

Pursuant to M.G.L. c.149,§ 27B, the employer is required to keep true and accurate records for all employees employed on the project, showing the name, address and occupational classification, the hours worked by, and the wages paid to each employee.

If the employer fails to differentiate the time spent driving from the time spent in other duties, the higher wage rate must be paid for all time worked.

It is the employer's responsibility to keep a true and accurate record of lunch and breaks and unrelated travel time.

D. APPLICABLE WAGE RATE

The wage rate that must be paid is listed on the minimum wage rate schedule furnished by the Commissioner and may vary from project to project, as the Commissioner determines. Applicable descriptions for teamsters include, but are not limited to: Oper 3 axle equipment, Oper 4 & 5 axle equipment, and Truck Driver. The wage rate paid is determined by applying the appropriate description to the actual piece of equipment that is being driven.

E. TIME NOT CONSIDERED SIGNIFICANTLY CONNECTED TO THE PROJECT

Travelling to the project site for the first time each day, and travelling home after the work day is not considered time on the project for the purpose of this law. Any employee may be paid his or her regular rate of pay for travel time but not less than the law will allow.

Lunch time and break time is not considered time on the project.

F. EFFECTIVE DATE

This policy shall apply to all public works projects for which the awarding authority has advertised for bids beginning on or after Thursday, July 1, 1993.

G. ON-GOING INVESTIGATIONS

This policy does not apply to on-going investigations or projects out to bid or awarded before the effective date.

Note: Policy questions regarding trade jurisdictions not covered by this statement should be directed to the Commissioner of Labor and Industries, 100 Cambridge Street, 11th Floor, Boston, Massachusetts 02202.

IV. WEEKLY PAYROLL REPORTS AND STATEMENT OF COMPLIANCE

In accordance with Massachusetts General Law, c. 149, § 27B, a true and accurate record must be kept of all persons employed on the public works construction project for which the enclosed rates have been provided. A Payroll Form is provided in Appendix "A" (included with State Minimum Wage Rates) and includes all 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 (3) years from the date of completion of the contract.

Awarding authorities may also request the information contained in the Payroll Forms from each contractor or subcontractor for their records. Once collected, the Awarding Authority is then required to preserve the records for three (3) years, as well.

These payroll records shall be open to inspection by any authorized representative of the department at any reasonable time, and as often as may be necessary. If awarding authorities, contractors or subcontractors wish to substitute the Payroll Form provided with one of their own, it must first be approved in writing by the Commissioner of Labor and Industries.

In addition, each such contractor, subcontractor or public body shall furnish to the Commissioner of Labor and Industries, within fifteen (15) days after completion of its portion of the work, a statement of wages, in the following form: (See Statement of Compliance included in Appendix A)

SUB-ARTICLE 10. RECORD KEEPING (MGL C30, S 39R)

(Definitions: Contract Provisions, Management and Financial Statements, and Enforcement)

I. **Section 39R.**

A. The works defined herein shall have the meaning stated below whenever they appear in this section:

1. **Contractor** means any person, corporation, partnership, joint venture, sole proprietorship, or other entity awarded a contract pursuant to Section 39M of Chapter 30; Sections 44A-H, inclusive, of Chapter 149; and Sections 30B-P, inclusive of Chapter 7.

2. **Contract** means any contract awarded or executed pursuant to Sections 30B-P, inclusive of Chapter 7 and any contract awarded or executed pursuant to Section 39M of Chapter 30 or Sections 44A-H, inclusive of Chapter 149, which is for an amount or estimated amount greater than $100,000.00.

3. **Records** means books of original entry, accounts, checks, bond statements and all other banking documents, tapes, discs, papers and other documents or transcribed information of any kind, whether expressed in ordinary or machine language.

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

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

6. **Accountant's Report** when used in regard to financial statements means a document in which an independent certified public accountant indicates the scope of the audit which he/she has made and sets forth his/her opinion regarding the financial statements taken as a whole with a listing of noted exceptions and qualifications, or an assertion to the affect that an overall opinion cannot be expressed.

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

7. **Management** when used herein, means the chief executive officer, partners, principals, or other person or persons primarily responsible for the financial and operational policies and practices of the contractor.

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

B. Subsection A (2) notwithstanding, every agreement or contract awarded or executed pursuant to sections 30B-P, inclusive of Chapter 7, and pursuant to Section 39M of Chapter 30 or to Section 44A-H, inclusive, of chapter 149, shall provide that:

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

2. until the expiration of six years after final payment, the office of inspector general and the deputy commissioner of capital planning and operations shall have the right to examine any books, documents, papers or records of the contractor or of his/her subcontractors that directly pertain to, and involve transactions relating to, the contractor or his/her subcontractors and

3. if the agreement is a contract as defined herein, the contractor shall describe any change in the method of maintaining records or

recording transactions which materially affect any statements filed with the awarding authority, including in his/her description the date of the change and reasons therefor, and shall accompany said description with a letter from the contractor's independent certified public accountant approving or otherwise commenting on the changes, and

4. if the agreement is a contract as defined herein, the contractor has filed a statement of management on internal accounting controls, as set forth in paragraph 9c below, prior to the execution of the contract, and

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

C. Every contractor awarded a contract shall file with the awarding authority a statement of management as to whether the system of internal accounting controls of the contractor and its subsidiaries reasonably assures that:

1. Transactions are executed in accordance with management's general and specific authorization;

2. transactions are recorded as necessary:

   a. to permit preparation of financial statements in conformity with generally accepted accounting principles, and

   b. to maintain accountability for assets;

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

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

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

1. whether the representatives of management in response to this paragraph and paragraph B above are consistent with the result of management's evaluation of the system of internal accounting controls; and

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

D. Every contractor awarded a contract by the Commonwealth or by any political subdivision thereof shall annually file with the deputy commissioner of capital planning and operations during the term of the contract a financial statement prepared by an independent certified public accountant on the basis of an audit by such accountant. The final statement filed shall include the date of final payment. All statements shall be accompanied by an accountant's report. Such statements shall be made available to the awarding authority upon request.

E. The office of inspector general, the deputy commissioner for capital planning and operations and any other awarding authority shall enforce the provisions of this section. The deputy commissioner of capital planning and operations may after providing an opportunity for the inspector general and other interested parties to comment, promulgate pursuant to the provisions of Chapter 30A such rules, regulations and guidelines as are necessary to effectuate the purposes of this section. Such rules, regulations and guidelines may be applicable to all awarding authorities.

A contractor's failure to satisfy any of the requirements of this section may be grounds for debarment pursuant to Section 44C of Chapter 149.

F. Records and statements required to be made, kept or filed under the provisions of this section shall not be public records as defined in Section 7 of Chapter 4 and shall not be open to public inspection; provided, however, that such records and statements shall be made available pursuant to the provision of clause (2) of paragraph B.

ARTICLE 8

THE COMMONWEALTH OF MASSACHUSETTS

SUPPLEMENTAL EQUAL EMPLOYMENT OPPORTUNITY ANTI-DISCRIMINATION AND AFFIRMATIVE ACTION PROGRAM

I. For purposes of this contract, "minority" refers to Asian-Americans, Blacks, Spanish Surnamed Americans, North American Indians, and Cape Verdeans. "Commission" refers to the Massachusetts Commission Against Discrimination.

II. During the performance of this contract, the contractor and all of his subcontractors (hereinafter collectively referred to as the Contractor), for himself, his assignees and successors in interest, agree as follows:

1. In connection with the performance of work under this contract, the Contractor shall not discriminate against any employee or applicant for employment because of race, color, religious creed, national origin, age or sex. The aforesaid provision shall include, but not be limited to the following: employment upgrading, demotion or transfer, recruitment advertising, recruitment layoff, termination, rates of pay or other forms of compensation, conditions or privileges of employment, and selection for apprenticeship. The Contractor shall post hereafter in conspicuous places, available for employees and applicants for employment, notices to be provided by the Commission setting forth the provisions of the Fair Employment Practices Law of the Commonwealth (M.G.L. Chapter 151B).

2. In connection with the performance of work under this Contract, the Contractor shall undertake in good faith affirmative action measures designed to eliminate any discriminatory barriers in the terms and conditions of employment on the grounds of race, color, religious creed, national origin, age or sex, and to eliminate and remedy any effects of such discrimination in the past. Such affirmative action shall entail positive and aggressive measures to ensure equal opportunity in the areas of hiring, upgrading, demotion or transfer, recruitment, layoff or termination, rate of compensation, and in-service or apprenticeship training programs. This affirmative action shall include all action required to guarantee equal employment opportunity for all persons, regardless of race, color, religious creed, national origin, age or sex. A purpose of this provision is to ensure to the fullest extent possible an adequate supply of skilled tradesmen for this and future Commonwealth public construction projects.

1. As part of his obligation of remedial action under the foregoing section, the Contractor shall maintain on this project a not less than 10% ratio of minority employee man hours to total man hours in each job category including but not limited to bricklayers, carpenters, cement masons, electricians, ironworkers, operating engineers, and those "classes of work" enumerated in Section 44C of Chapter 149 of the Massachusetts General Laws.

2. In the hiring of minority journeymen, apprentices, trainees and advanced trainees, the Contractor shall rely on referrals from a multi-employer affirmative action program approved by the Commission, traditional referral methods utilized by the construction industry, and referrals from agencies, not more than three in number at any one time, designated by the Liaison Committee or the Commission.

1. At the discretion of the Commission there may be established for the life of this contract a body to be known ad the Liaison Committee. The Liaison Committee shall be composed of one representative each from the agency or agencies administrating this project, hereinafter called the administering agency, the Commission and such other representatives as may be designated by the Commission in conjunction with the administering agency.

2. The Contractor (or his agent, if any, designated by him as the on-site equal employment opportunity officer) shall recognize the Liaison Committee as an affirmative action body, and shall establish a continuing working relationship with the Liaison Committee, consulting with the Liaison Committee on all matters related to minority recruitment, referral, employment and training.

3. The Contractor shall prepare projected manning tables on a quarterly basis. These shall be broken down into projections, be week, or workers required in each trade. Copies shall be furnished on e week in advance of the commencement of the period covered, and also when updated to the Commission and Liaison Committee.

4. Records of employment referral orders, prepared by the Contractor, shall be made available to the Commission and to the Liaison Committee on request.

5. The Contractor shall prepare weekly reports in a form approved by the Commission of hours worked in each trade by each employee, identified as minority or non-minority. Copies of these shall be provided at the end of each such week to the Commission and to the Liaison Committee.

V. If the Contractor shall use any subcontractor on any work performed under this contract, he shall take affirmative action to negotiate with qualified minority subcontractors. This affirmative action shall cover both pre-bid and post-bid periods. It shall include modification to the Office of Minority Business Assistance (within the Executive Office of Communities and Development) or its designee, while bids are in preparation, of all products, work or services for which the Contractor intends to negotiate bids.

VI. In the employment of journeymen, apprentices, trainees and advanced trainees, the Contractor shall give preference, first, to citizens of the Commonwealth who have served in the armed forces of the United States in time of war and have been honorably discharged therefrom or released from active duty therein, and who are qualified to perform the work to which the employment related, and, secondly, to citizens of the Commonwealth generally, and, if such cannot be obtained in sufficient numbers, then to citizens of the United States.

VII. A designee of the commonwealth and a designee of the Liaison Committee shall each have right of access to the construction site.

VIII <u>Compliance with Requirements</u>

The Contractor shall comply with the provision of Executive Order No. 74 as amended by Executive Order No.116 dated May 1, 1975, and of Chapter 151B, as amended, of the Massachusetts General Laws, both of which are herein incorporated by referenced and made a part of this contract.

IX <u>Non-Discrimination</u>

The Contractor, in the performance of all work after award, and prior to completion of the contract work, will not discriminate on grounds of race, color, religious creed, national origin, age or sex in employment practices in the selection or retention of subcontractors, or in the procurement of materials and rentals of equipment.

X. Solicitations for Sub-Contracts,
<u>and for the Procurement of Materials and Equipment</u>

In all solicitations either by competitive bidding or negotiation made by the Contractor either for work to be performed under a subcontract or for the procurement of materials or equipment, each potential subcontractor or supplier shall be notified in writing by the Contractor of the Contractor's obligations under this Contract relative to non-discrimination and affirmative action.

XI Bidders Certification Requirement

1. The bidders certification form currently in use will be deleted from all future bid documents.

2. The following certification statement will be inserted in the bid document just above the bidder's signature, as a substitute for the present bidder certification form.

   "The bidder hereby certifies he shall comply with the minority manpower ratio and specific action steps contained in the appendix EEO attached hereto, including compliance with the minority contractor compliance specified in Section V of said appendix. The contractor receiving the award of the contract shall be required to obtain from each of its subcontractors and submit to the contacting or administering agency prior to the performance of any work under said contract a certification by said subcontractor, regardless of tier that it will comply with the minority manpower ratio and specific affirmative action steps contained in the appendix EEO.

XII Contractor's Certification

The Contractors certification form must be signed by all successful low-bidder(s) prior to award by the contracting agency.

XIII Compliance-Information, Reports and Sanctions

1. The Contractor will provide all information and reports required by the administering agency or the Commission on instructions issued by either of them and will permit access to its facilities and any books, records, accounts and other sources of information which may be determined by the Commission to affect the employment of personnel. This provision shall apply only to information pertinent to the Commonwealth's supplementary affirmative action contract requirements. Where information required is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to the administering agency or the Commission as appropriate and shall set forth what efforts he has made to obtain the information.

2. Whenever the administering agency, the Commission, or the Liaison Committe believers the General Contractor or any Subcontractor may not be operating in compliance with te termis of this Section, the Commission directly, or through its designated agent, shall conduct an appropriate

investigation, and may confer with the parties, to determine if such Contractor is operating in compliance with the terms of this Section. If the Commission or its agent finds the General Contractor or any subcontractor not in compliance, it shall make a preliminary report on non-compliance, and notify such Contractor in writing of such steps as will in the judgement of the Commission or its agent bring such Contractor into compliance. In the event that such Contractor fails or refuses to fully perform such steps, the Commission or its agent shall make a final report of non-compliance, adn recommend to the administering agency the imposition of one or more of the sanctions listed below. If, however, teh Commission believes the General Contractor or any Subcontractor has taken or is taking every possible measure to achieve compliance, it shall not make a final report of non-compliance. Within fourteen days of the receipt of the recommendations of the Commission, the administering agency shall move to impose on or more of the following sanctions, as it may deem appropriate to attain full and effective enforcement:

a. The recovery by the administering agency from the General Contractor of 1/100 of 1% of the contract award price or $1,000, whichever sum is greater, in the nature of liquidated damages or, if a subcontractor is in non-compliance, the recovery by the administering agency from the General Contractor, to be assessed by the General Contractor as a back charge against the Subcontractor, of 1/10 of 1% of the subcontract price, or $400., whichever is greater, in the nature of liquidated damages, for each week that such party fails or refuses to comply;

b. The suspension of any payment or part thereof due under the contract until such time as the General Contractor or any Subcontractor is able to demonstrate his compliance with the terms of the contract;

c. The termination, or cancelation of the contract, in whole or in part, unless the General Contractor or any Subcontractor is able to demonstrate within a specified time his compliance with the terms of the contract;

d. The denial to the General Contractor or any Subcontractor of the right to participate in any future contracts awarded by the administering agency for a period of up to three years.

3. If at any time after the imposition of one or more of the above sanctions a Contractor is able to demonstrate that he is in compliance with this Section,

he may request the administering agency, in consultation with the Commission, to suspend the sanctions conditionally, pending a final determination by the Commission as to whether the Contractor is in compliance. Upon final determination of the Commission, the administering agency, based on the recommendation of the Commission, shall either lift the sanctions or reimpose them.

4. Sanctions enumerated under Sections XII-2 shall not be imposed by the administering agency except after an adjudicatory proceeding, as that term is used M.G.L. c.30A, has been conducted. No investigation by the Commission or its agent shall be initiated without prior notice to the Contractor.

XIV. Severability

The provisions of this section are severable, and if any of these provisions shall be held unconstitutional by any court of competent jurisdiction, the decision of such court shall not affect or impair any of the remaining provisions.

301. CMR 50.00: AFFIRMATIVE ACTION

Section

50.01: Declaration of Policy
50.02: Purpose and Scope
50.03: Definitions
50.04: Employment Policies of Agencies Within EOEA
50.05: State Services and Facilities
50.06: Eligibility for Financial Assistance
(301 CMR 50.07 and 50.08: RESERVED)
50.09: Construction Projects Conducted by Agencies
50.10: Construction Projects Conducted by Grantees
(301 CMR 50.11 through 50.13: RESERVED)
50.14: Compliance and Sanctions
50.15: Severability
50.16: Appendix 1. Executive Order 74 (as amended and revised by Executive Order 116) the Governor's Code of Fair Practices.
50.17: Appendix 2. Supplemental Equal Employment Opportunity Anti-Discrimination and Affirmative Action Program
50.18: Appendix 3. Equal Employment Opportunity Guidelines
50.19: Appendix 4. Fair Housing Guidelines
50.20: Appendix 5. Memorandum of Agreement
50.21: Appendix 6. Goals and Timetables Adopted Pursuant to the

Department of Labor's Regulations 41 CFR 60-4.6

50.22: Appendix 7. Rules of Procedure for Hearings on Compliance with the Commonwealth's Equal Employment Policy and Anti-Discrimination and Affirmative Action Plan

50.01: Declaration of Policy

(1) Non-discrimination and equal opportunity are the policy of the Executive Office of Environmental Affairs in all of its decisions, programs and activities. To that end, all agency employees shall rigorously take affirmative steps to ensure equality of opportunity int he internal affairs of all agencies as well as in their relations with the public, including those persons and organizations doing business with any agency of the Executive Office of Environmental Affairs. Each agency, in discharging its decisions, programs and activities shall have in meeting the goal of equality of opportunity.

(2) Affirmative action requires more than vigilance in the elimination of discriminatory barriers on the grounds of race, color, creed, national origin, age, and sex. It must also entail positive and aggressive measures to ensure equal opportunity in internal personnel practices and in those programs which can affect persons and political subdivisions outside of state government. This affirmative action shall include efforts necessary to remedy the effects of present and past discriminatory patterns and practices and any action necessary to guarantee equal opportunity for all people.

(3) All agencies shall initiate affirmative action programs designed to conform to this policy. All such affirmative action programs shall be subject to review by the Executive Office of Administration and Finance, or such other Office or person as may be designated by the Governor, and the Massachusetts Commission Against Discrimination, as provided in 301 CMR 50.16 (Appendix 1, Executive Order 74, as amended by Executive Order No. 116, the Governor's Code of Fair Practice).

(4) All powers, functions and duties granted to the Secretary of Environmental Affairs under any provision of law shall be construed liberally for the accomplishment of these regulations.

These regulations establish the procedures by which the Executive Office of Environmental Affairs and all its agencies shall comply with the policy and requirements for equal employment opportunity and affirmative action.

50.10 Construction Projects Conducted by Grantees

(1) Before any applicant receives any financial assistance, including state assisted or federally assisted construction grants awarded under any program administered by an agency, the Secretary must have determined that such applicant is in compliance with the

Equal Employment Opportunity Guidelines and Fair Housing Guidelines of the Commission, as they may be amended from time to time (301 CMR 50.18 Appendix 3 and 50.19 Appendix 4 of these regulations) according to the procedures set forth in 301 CMR 50.06 of these regulations.

(2) Every state or state-assisted or federal or federally-assisted contract for public buildings and public works or for goods or services that is let by a grantee shall contain an article prohibiting discriminatory employment practices by contractors, subcontractor, and suppliers of goods or services based on race, color, religion, national origin, ancestry, age or sex. The non-discrimination article shall include a provision requiring contractors and suppliers of goods or services to give written notice of their commitments under this section to any labor union, association or brotherhood with which they have a collective bargaining or other agreement. Such notice shall also be given to the Commission and to SOMBA.

(3) Grantees shall adopt for use in all contracts for construction projects with a dollar value in excess of ten thousand dollars ($10,000.) an adapted version of the Commonwealth of Massachusetts Supplemental Equal Employment Opportunity Anti-Discrimination and Affirmative Action Program (Supplemental Program) (301 CMR 50.17 Appendix 2 of these regulations). Such contract may include minority workforce percentages greater than those required for the geographical locations of the construction project as set forth in the Supplemental Program.

(4) Grantees shall take affirmative steps to increase participation of minority business enterprise (MBEs) in any construction grant.

(5) Prior to the publication of the availability of contracts for construction work to be performed under any construction grant with a total dollar value in excess of ten thousand dollars ($10,000.), the grantee shall notify SOMBA of its intent to solicit bids and shall make available to SOMBA, upon request, copies of the proposal to bid, specifications and plans, and bid invitations.

(6) At the discretion of the Commission there may be established for the life of any construction contract a body to be known as the Liaison Committee, which may be the Executive Office Liaison Committee as established by 301 CMR 50.09 (3) of these regulations. A representative of the grantee shall be a member of the Liaison Committee. The contractor or his agent shall recognize the Liaison Committee as an affirmative action body, and shall establish a continuing working relationship with the Liaison Committee, consulting with the Liaison Committee on all matters related to minority recruitment, referral, employment and training.

(7) Before making the final allocation of funds to any grantee, the Secretary shall review any contracts for construction work to be performed under the grantee, to ascertain the grantee's compliance with the provisions of these regulations.

MINIMUM PERCENTAGES TO BE APPLIED TO STATE AND STATE-ASSISTED CONTRACTS WITHIN THE COMMONWEALTH OF MASSACHUSETTS

The following percentages shall apply		Not Less Than:
Boston:	Impact Area (Jamaica Plain (part), Mattapan, South Cove, Chinatown, Bay Village, Roxbury, Dorchester, South End.	30%
	Others	10%
Cambridge:		12%
New Bedford:		18%
Springfield:		10%
All other cities and towns		5%

PRODUCED BY [illegible] M. Toland

December 19, 1988

CITY OF QUINCY

IN COUNCIL

RECEIVED

OCT 17 1989

QUINCY BUILDING DEPT.

RDER NO. 532

RDERED:

e it ordained by the City Council of the City of Quincy, that the revised rdinances of the City of Quincy, 1976, are further amended in Chapter 13 ffenses - Miscellaneous, by adding the following new section:

ECTION 54 - RESIDENCY FOR CITY SUPPORTED CONSTRUCTION PROJECTS:

- On any construction project funded in whole or in part by City funds, or funds from a federal grant or loan, or City-approved M.I.F.A. applications, or projects for which the City administers the construction contract, and when a project has a projected cost of more than $250,000.00 residents of Quincy who are qualified to perform the work to which the employment relates shall be given preference in hiring on a 1-of-every-3 ratio, after the employer's foreman or supervisor and two key employees have been employed for a one-week payroll period.

- In any project with a projected cost of more than $250,000.00, companies receiving public assistance through these financing agencies should be in concurrence with the prevailing wages in the area, including wages in the Davis-Bacon Act. No revenue bond applications are to be approved unless the applicant agrees to all of the aforementioned conditions.

- Prior to entering into a construction agreement involving more than $250,000.00 the owner, developer or contractor shall place a reasonable size advertisement, at least 3" x 5" in size, at least twice, in at least one newspaper having a local distribution, on a craft-by-craft basis, indicating that bids are sought and the qualified residents of Quincy shall be given preference consideration in hiring on a 3-to-1 ratio.

Minorities and women shall additionally be accorded preference for their hiring, as provided for in the federal, state or municipal laws, shall either be included or the same will be deemed included in all constructi agreements.

The Quincy Equal Opportunity Administrator will be furnished copies of names and home addresses of employees, upon request, and will be furnished such other proof compliance as said Director may request, upon written request for the same, within seven days of such request.

In the event that any section of this ordinance is deemed illegal, unenforceable, or unconstitutional, then the remaining sections shall remain in full force and effect.

PASSED TO BE ORDAINED JUNE 5, 1989

ATTEST

CLERK OF COUNCIL

PPROVED

IN 12 1989

MAYOR

YEAS Cahill, Cheney, Chretien, DeCristofaro, McGrath, Nutley, Phelan, Sheets, Toland

NAYS Cahill, Cheney, Chretien, DeCristofaro, McGrath, Nutley, Phelan, Sheets, Toland

INTRODUCED BY

CITY OF QUINCY

IN COUNCIL

October 15, 1990

ORDER NO. 245

ORDERED: Insert the following additional subsections in Chapter 13, Sec. 54) (Replaces page two of Council Order #532 of 1989)

6. Any bidder for work covered by this section must notify the Quincy Equal Opportunity Administrator of the names and addresses of any individuals currently employed by the bidder who are not residents of Quincy and who the bidder intends to employ on the project. Such notice shall be in writing at least 48 hours prior to the opening of the bids. Failure to so notify the Administrator shall be deemed an admission by the bidder that the composition of the work force for the project will be in accordance with Section 1 of this ordinance.

7. This ordinance shall be enforced by the Commissioner of Public Works or his designee in conjunction with the Quincy Equal Opportunity Administrator. A $300 fine shall be levied and withheld from the payment of any contractor who violates this ordinance for each day the contract remains in violation.

8. For purposes of this ordinance, a resident of Quincy shall mean an individual who is domiciled in the City of Quincy. Individuals who temporarily live in the City of Quincy during the term of the project shall not be considered residents of Quincy for the purpose of this ordinance.

9. In the event that any section of this ordinance is deemed illegal, unenforceable, or unconstitutional, then the remaining sections shall remain in full force and effect.

PASSED TO BE ORDAINED OCTOBER 15, 1990

ATTEST:

CLERK OF COUNCIL

APPROVED

OCT 18 1990

MAYOR

YEAS Cahill, Cheney, Chretien, DeCristofaro, Fabrizio, Kolson, Nutley, Phelan, Toland

NAYS Cahill, Cheney, Chretien, DeCristofaro, Fabrizio, Kolson, Nutley, Phelan, Toland

INTRODUCED BY

CITY OF QUINCY

IN COUNCIL

ORDER NO. 264

ORDERED:

This order was returned to the City Council on June 20, 1989, with the Mayor's disapproval with a statement in writing giving his objections to the order. On October 2, 1989 the order was passed to be ordained notwithstanding the veto of the Mayor. Eight voting YES and one voting NO - Councillor Timothy P. Cahill voting in the negative.

ATTEST:

Clerk of Council

YEAS Cahill, Cheney, Chretien, DeCristofaro, McGrath, Nutley, Phelan, Sheets, Toland

NAYS Cahill, Cheney, Chretien, DeCristofaro, McGrath, Nutley, Phelan, Sheets, Toland

ARTICLE 11

THE COMMONWEALTH OF MASSACHUSETTS
THE CITY OF QUINCY, MASSACHUSETTS
SUPPLEMENTAL EQUAL EMPLOYMENT OPPORTUNITY
ANTI-DISCRIMINATION AND AFFIRMATIVE ACTION PROGRAM

I. For purposes of this contract, "minority" refers to Asian-Americans, Blacks, Spanish Surnamed Americans, North American Indians, and Cape Verdeans. "Commission" refers to the Massachusetts Commission Against Discrimination. "City" refers to the City of Quincy, Massachusetts.

II During the performance of this contract, the Contractor and all of his subcontractors (hereinafter collectively referred to as the Contractor), for himself, his assignees, and successors in interests, agree as follows:

1. In connection with the performance of the work under this contract, the Contractor shall not discriminate against any employee or applicant for employment because of race, color, religious creed, national origin, age or sex. The aforesaid provision shall include, but not be limited to the following: employment upgrading, demotion, or transfer; recruitment advertising, recruitment layoff, termination; rates of pay or other forms of compensation; conditions or privileges of employment; and selection for apprenticeship. The Contractor shall post hereafter in conspicuous places, available for employees and applicants for employment, notices to be provided by the Commission setting forth the provisions of the Fair Employment Practices Law of the Commonwealth (MGL Chapter 151B).

2. In connection with the performance of the work under this contract, the contractor shall undertake in good faith affirmative action measures designed to eliminate any discriminatory barriers in the terms and conditions of employment on the grounds of race, color, religious creed, national origin, age or sex, and to eliminate and remedy any affects of such discrimination in the past. Such affirmative action shall entail positive and aggressive measures to ensure equal opportunity in the areas of hiring, upgrading, demotion or transfer, recruitment, layoff or termination, rate of compensation, and in-service or apprenticeship training programs. This affirmative action shall include all action required to guarantee equal employment opportunity

for all persons, regardless of race, color, religious creed, national origin, age, or sex. A purpose of this provision is to ensure to the fullest extent possible an adequate supply of skilled tradesmen for this and future City public construction projects.

III. 1. As part of his obligation of remedial action under the foregoing section, the Contractor shall maintain on this project a not less than 10% ratio of minority employee man hours to total man hours in each job category, including but not limited to bricklayers, carpenters, cement masons, electricians, ironworkers, operating engineers, and those "classes of work" enumerated in Section 44C of Chapter 149 of the Massachusetts General Laws.

2. In the hiring of minority journeymen, apprentices, trainees and advanced trainees, the Contractor shall rely on referrals from a multi-employer affirmative action program approved by the City, traditional referral methods utilized by the construction industry, and referrals from agencies, not more than three in number at any one time, designated by the Liaison Committee or the City.

IV. 1. At the discretion of either the Commission or the City, there may be established for the life of this contract a body to be known as the Liaison Committee. The Liaison Committee shall be composed of one representative each from the agency or agencies administering this project, hereinafter called the contracting agency, the City and such other representatives as may be designated by the Commission or the City in conjunction with the administering agency.

2. The Contractor (or his agent, if any, designated by him as the on-site equal employment officer) shall recognize the Liaison Committee as an affirmative action body, and shall establish a continuing working relationship with the Liaison Committee, consulting with the Liaison Committee on all matters related to minority recruitment, referral, employment and training.

3. The Contractor shall prepare projected manning tables on a quarterly basis. These shall be broken down into projections by week, or workers required in each trade. Copies shall be furnished one week in advance of the commencement of the period covered, and also when updated to the City and Liaison Committee.

4. Records of employment referral orders, prepared by the Contractor, shall be made available to the City and to the Liaison Committee on request.

5. The Contractor shall prepare weekly reports in a form approved by the Commission of hours worked in each trade by each employee, identified as minority or non-minority. Copies of these shall be provided at the end of each such week to the City and to the Liaison Committee.

V. If the Contractor shall use any subcontractor on any work performed under this contract, he shall take affirmative action to negotiate with qualified minority subcontractors. This affirmative action shall cover both pre-bid and post-bid periods. It shall include notification to the Office of Minority Business Assistance (within the Executive Office of Communities and Development) or its designee, while bids are in preparation, of all products, work or services for which the Contractor intends to negotiate bids. See attached requirements of City's Minority Business Enterprise Program.

VI. In the employment of journeymen, apprentices, trainees and advanced trainees, the Contractor shall give preference first to citizens of the Commonwealth of Massachusetts who have served in the armed forces of the United States in the time of war and have been honorably discharged therefrom or released from active duty therein, and are qualified to perform the work to which the employment relates, and, secondly, to citizens of the Commonwealth of Massachusetts, generally, and if such cannot be obtained in sufficient number, then to citizens of the United States.

VII. A designee of the City and a designee of the Liaison Committee shall each have right of access to the construction site.

VIII. <u>Compliance with Requirements</u>

The Contractor shall comply with the provisions of Executive Order No. 74, as amended by Executive Order 116, dated May 1, 1975, and of Chapter 151B, as amended, of the Massachusetts General Laws, both of which are herein incorporated by reference and made a part of this contract.

IX. <u>Non-Discrimination</u>

The Contractor, in the performance of all work after award, and prior to completion of the contract work, will not discriminate on grounds of race, color, religious creed, national origin, age or sex in employment practices, in the selection or retention of subcontractors, or in the procurement of materials and rentals of equipment.

X. Solicitations for Sub-Contractors
<u>and for the Procurement of Materials and Equipment</u>

In all solicitations either by competitive bidding or negotiation made by the Contractor either for work to be performed under a subcontract or for the procurement of materials or equipment, each potential subcontractor or supplier shall be notified in writing by the Contractor of the Contractor's obligations under this contract relative to non-discrimination and affirmative action.

XI. Bidders Certification Requirement

1. The following certification statement will be inserted in the bid document just above the bidder's signature.

   "The bidder hereby certifies that he shall comply with the minority manpower ratio and specific action steps contained in the Supplemental Equal Employment Opportunity Anti-Discrimination and Affirmative Action Plan (Supplemental EEO) attached hereto, including compliance specified therein. The contractor receiving the award of the contract shall be required to obtain from each of its subcontractors and submit to the contracting agency prior to the performance of any work under said contract a certification by said subcontractor, regardless of tier, that it will comply with the minority manpower ratio and specific affirmative action steps contained in the Supplemental EEO."

XII. Contractor's Certification

The Contractor's certification form must be signed by all successful bidder(s) prior to award by the contracting agency (see Section 00450).

XIII. Compliance Information, Reports and Sanctions

1. The Contractor will provide all information and reports required by the administering agency or the City on instruction issued by either of them and will permit access to its facilities and any books, records, accounts, and other sources of information which may be determined by the City to affect the employment of personnel. This provision shall apply only to information pertinent to the City's supplementary affirmative action contract requirements. Where information required is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to the administering agency or the City as appropriate, and shall set forth what efforts he has made to obtain the information.

2. Whenever the administering agency, the City, or the Liaison Committee believes the General Contractor or any subcontractor may not be operating in compliance with the terms of this section, the City directly, or through its

designated agent, shall conduct an appropriate investigation, and may confer with the parties, to determine if such contractor is operating in compliance with the terms of this section. If the City or its agent finds the General Contractor or any subcontractor not in compliance with the terms of this section, it shall make a preliminary report of non-compliance, and notify such Contractor in writing of such steps as will in the judgement of the City or its agent, bring such Contractor into compliance. In the event that such Contractor fails or refuses to fully perform such steps, the City shall make a final report of non-compliance, and recommend to the contracting agency the imposition of one or more of the sanctions listed below. If, however, the City believes the General Contractor or any subcontractor has taken or is taking every possible measure to achieve compliance, it shall not make a final report of non-compliance. Within fourteen days of the receipt of the recommendation of the City, the contracting agency shall move to impose on or more of the following sanctions, as it may deem appropriate to attain full and effective enforcement:

a. The recovery by the administering agency from the General Contractor of 1/100 of 1% of the Contract award price, or $1,000., whichever is greater, in the nature of liquidated damages, or, if a subcontractor is in non-compliance, the recovery by the contracting agency from the General Contractor to be assessed by the General Contractor as a back charge against the subcontractor of 1/10 of 1% of the subcontract price, or $400., whichever is greater, in the nature of liquidated damages, for each week that such party fails or refuses to comply.

b. The suspension of any payment or part thereof due under the contract until such time as the General Contractor or any subcontractor is able to demonstrate his compliance with the terms of this section.

c. The termination, or cancellation of the contract, in whole or in part, unless the General Contractor or any subcontractor is able to demonstrate within a specified time his compliance with the terms of the contract.

d. The denial to the General Contractor or any subcontract of the right to participate in any future contracts awarded by the administering agency for a period of up to three years.

3. If at any time after the imposition of one or more of the above sanctions a contractor is able to demonstrate that he is in compliance with this section,

he may request the administering agency, in consultation with the City to suspend the sanctions conditionally, pending a final determination by the City as to whether the Contractor is in compliance. Upon final determination of the City, the administering agency, based on the recommendation of the City, shall either lift the sanctions of reimpose them.

4. Sanctions enumerated under Sections XI-2 shall not be imposed by the administering agency except after an adjudicatory proceeding, as that term is used in MGL c.30A, has been conducted. No investigation by the City or its agent shall be initiated without prior notice to the Contractor.

XIV. Severability

The provisions of this section are severable, and if any of these provisions shall be held unconstitutional by any court of competent jurisdiction, the decision of such court shall not affect or impair any of the remaining provisions.

ORDER NO. 236 of 1988

ORDERED:

May 16, 1988

Be it ordered that Chapter 24 of the Zoning Ordinance of the City of Quincy as amended, be further amended in Art. VIII, by adding a new section 87: Blasting.

Section 87

1. Pre-blast Survey

a. For all permits issued for blasting (rock excavation) in the City of Quincy, a pre-blast survey must be made by the contractor or by an approved firm in this kind of work and satisfactory to the contractor's insurance company.

b. The pre-blast survey will include a survey of the interior and exterior of existing buildings and stone walls adjacent to the project as specified herein, before any excavation or blasting is done. Written approval must be secured from the Fire Chief, City Engineer and Building Inspector serving as the Committee on Blasting.

c. The survey shall record all visible structural defects such as cracks, settlement and lines out of plumb.

d. The survey data shall be recorded in a permanent manner in approved hardbound notebooks. The survey data shall include polaroid photographs showing the building constructions surveyed referenced to the notebook pages. Also a tape recording of all data pertinent to the survey shall be made. The scope and format of the record survey data shall be satisfactory to the Committee on Blasting. Before commencing any blasting or ledge excavation, copies of the survey must be on file at the offices of the Quincy City Engineer, and Quincy City Clerk, City Hall, Quincy, MA.

e. The adjacent area requiring the pre-blasting survey is specified as all buildings and stone walls within a radius of three hundred fifty feet (350) from said blast.

f. Provided, however, that no pre-blasting survey shall be required if blasting is within the following limits: The total charge weight per blast does not exceed five (5) pounds and the maximum weight per delay does not exceed two pounds per delay.

YEAS Cahill, Cheney, Chretien, DeCristofaro, McGrath, Nutley, Phelan, Sheets, Toland

NAYS Cahill, Cheney, Chretien, DeCristofaro, McGrath, Nutley, Phelan, Sheets, Toland

ORDER NO.
ORDERED:

g. If blasting is designed to excavate more than a ten (10) cubic yard area, the contractor must post a bond with the City of Quincy. The amount of said bond shall be determined by the Committee on Blasting. The Committee on Blasting will not release the bond until it is convinced that all judgments and claims have been reasonably dealt with by the contractor.

h. All blasting is to be supervised on site by an authorized member of the Fire Department, assigned by the Chief, and the cost of said supervision shall be the sole responsibility of the contractor.

i. Any person who shall violate any of the provisions of this ordinance, as determined by the Committee on Blasting, or who fails to comply therewith, shall severally, for each and every violation and noncompliance respectively, be liable to a penalty of two hundred dollars ($200.00) for each offense.

PASSED TO BE ORDAINED OCTOBER 16, 1989

ATTEST

CLERK OF COUNCIL

APPROVED

OCT 23 1989

MAYOR

YEAS Cahill, Cheney, Chretien, DeCristofaro, McGrath, Nutley, Phelan, Sheets, Toland

NAYS Cahill, Cheney, Chretien, DeCristofaro, McGrath, Nutley, Phelan, Sheets, Toland

SPECIAL PROVISIONS

REQUIREMENTS FOR MINORITY/WOMEN BUSINESS ENTERPRISE

I. In this contract, the percentage of business activity to be performed by Minority/Women Business Enterprise(s) shall not be less than the following percentages of the total contract price, or the percentage submitted by the contractor in the Schedule of Participation, whichever is greater.

Minority Contractors 10 % **Women Contractors 5 %**

II. DEFINITIONS

For the purpose of these provisions, the following terms are defined as follows:

A. **Agency:** The City of Quincy.

B. **Bidder:** Any individual, partnership, joint venture, corporation, or firm submitting a price, directly or through an authorized representative, for the purpose of performing construction related activities under a contract.

C. **Certificate of Work Start-Up**: A letter to be signed by a principal contractor prior to performance of work by Minority and Women Business Enterprises under a Contract (See attached form EEO-390).

D. **Compliance Unit**: A subdivision of the Agency's Affirmative Action Office designated to ensure compliance under these provisions.

E. **Contract Compliance Officer**: The person(s) designated by the Agency to assist and make recommendations with respect to compliance with the provisions of this document.

F. **Contractors**: Any business that contracts or subcontracts for construction, demolition, renovation, survey, or maintenance work in the various classifications customarily used in work ant that is acting in this capacity under the subject contract.

G. **Construction Related Services**: Those services performed at the work site ancillary to, and/or in support of, the construction work, such as hauling, trucking, equipment operation, surveying or other technical services, etc. For the purposes hereof, supply and delivery of materials (e.g. pre-cast concrete elements) to the site by a supplier who has manufactured those goods, or substantially altered them before re-sale shall be considered as "construction related services".

H. **Construction Work**: The activities at the work site, or labor and use of materials in the performance of constructing, reconstructing, erecting, demolishing, altering, installing, disassembling, excavating, etc., all or part of the work required by theContract Documents.

I. **Equipment Rental Firm**: A firm that owns equipment and assumes actual andcontractual responsibility for renting said equipment to perform a useful function of the work of the contract consistent with normal industry practice.

J. **Grantee**: An agency, person or political subdivision which has been awarded or received financial assistance by the Trust or the Agency.

K. **Joint Venture**: An agreement between SOMWBA certified M/WBE and a non-minority or non-woman, controlled enterprise.

1. A pairing of companies will be considered a MBE or WBE joint venture if the SOMWBA certified M/WBE, which is part of the relationship has more than 51% of the profits that are derived from that project.

2. A joint venture between a certified M/WBE, subcontractor and a non-M/WBE subcontractor, in which the M/WBE for that proportion joint venture's contract equal to the M/WBE participation in the joint venture.

3. Whenever a general bid is filed by a joint venture with a certified M/WBE participant in the joint venture that does not exercise more than 51% control over management and profits, that joint venture shall be entitled to credit as a M/WBE for that portion of the joint venture's contract equal to the M/WBE participation in the joint venture Minority. As deemed by SOMWBA.

L. **Letter of Intent**: Certified document signed by the principal(s) of the Minority or Women Business Enterprise with respect to the work to be performed under the contract.

M. **Local Government Unit**: A City, Town, or municipal district which applies for a loan or grant from a State or Federal Agency.

N. **Material Supplier**: A vendor certified by SOMWBA as a M/WBE in sales to supply industry from an established place of business or source of supply, and that vendor.

1. Manufacturers goods from raw materials, or substantially utilizes them in the work, or substantially alters them before resale, entitling the general contractor to M/WBE credit for 100% of the purchase order.

2. Provides and maintains a storage facility for materials utilized in the work, entitling the general contractor to M/WBE credit for 100% of the purchase order.

O. **M/WBE Quarterly Activity Report**: A letter to be signed by a principal contractorwith respect to certain work performed by Minority and Women Business Enterprises under a Contract (See Attached From EEO-290).

P. **Minority and Women Business Enterprise (M/WBE)**: Any business concern certified by SOMWBA as a bona fide M/WBE. A bona fide M/WBE is a business whose minority group or women ownership interests are real, which have at least 51% ownership and control over management and operations.

Q. **Percent of Total Price**: Is the percentage to be paid to the M/WBE, work they perform, as compared to the total bid price.

R. **SOMWBA**: The State Office of Minority and Women Business Assistance.

S. **Total Contract Price**: The total amount of compensation to be paid for all materials, work or services rendered in the performance of the contract.

III. REQUIREMENTS FOR CONTRACT AWARD

A. As part of the contract bid documents, the contractor shall submit a schedule with accompanying letters of intent on the appropriate forms (see forms EEO-190 and EEO 191). The letter of intent shall include, among other things, a reasonable description of the work the M/WBE is proposing to perform and the prices the M/WBE proposes to charge for the work.

A letter of intent shall be jointly signed by the M/WBE and the primary contractor who proposes to use them in the performance of the Contract. The schedule shall list the M/WBEs with whom the contractor intends to subcontract and state the total price to be paid to each M/WBE as taken from each letter for intent submitted under this subsection.

B. As part of the bid proposal, the bidder shall submit a **Schedule of Participation** on the form attached and shall list those M/WBEs the contractor intends to use in fulfilling the contract obligations, the nature of the work to be performed by each M/WBE subcontractor and the total price they are to be paid.

1. A listing of bona fide service such as a professional, technical, consultant or managerial services, assistance in the procurement of essential personnel, facilities, equipment, materials, or supplies required for performance of the Contract and reasonable fees or commissions charged.

2. A listing of haulers, truckers, or delivery services, not the contractors, including reasonable fees for delivery of said materials or supplies to be included on the project.

C. As part of the contract bid documents, the contractor shall submit the SOMWBA "Minority and Women Certification" as prepared by each M/WBE.

IV. REQUIREMENTS FOR MODIFICATION OR WAIVERS

The bidder shall make every possible effort to meet the minimum requirements of M/WBE participation. If the percentage goals of M/WBE participation submitted by the bidder on its Schedule of Participation (EEO-190) does not meet the minimum requirements, the bid may be rejected and/or found not to be eligible for award of the contract, unless the bidder is granted a waiver pursuant to this section.

In the event that a bidder is unable to meet the minimum M/WBE percentage goals, the bidder may submit a Request for Waiver (EEO-490). The Agency in conjunction with the project manager, Affirmative Action and Compliance Unit, will make an assessment of the bidder's application for a waiver.

Within five (5) working days following the bid opening, the bidder must submit by registered mail to the Agency detailed information as specified below to establish that they have made a good faith effort to comply with the percentage goals specified in EEO-190. In addition, the bidder must show that such efforts were undertaken will in advance of the time set for the opening of the bids to allow adequate response. If the information and documentation demonstrates that despite such efforts the bidder was/is unable to meet the M/WBE participation requirements, a waiver request may be submitted which provides the following:

A. A detailed record of the effort made to contract and negotiates with minority and/or women businesses, including:

1. Names, addresses and telephone numbers of all such companies contacted;

2. Copies of written notice(s) which were sent to M/WBE potential subcontractors, prior to bid opening;

3. A detailed statement as to why each subcontractor contacted (I) was not willing to do the job or (ii) was not qualified to perform the work as solicited; and

4. In the case(s) where a negotiated price could not be reached, the bidder should detail what efforts were made to reach an agreement on a competitive price;

5. Copies of advertisement, dated not less than ten days prior to bid opening date, as appearing in general publications, trade oriented publications, and applicable minority/women-focuses media detailing the opportunities for participation.

B. The Agency may require the bidder to produce such additional information as it deems appropriate.

C. No later than fifteen (15) days after submission of all required information and documentation, a decision as to whether a waiver will be granted will be made in writing to the bidder. If the waiver request is denied, the facts upon which a denial is based will be set forth in writing. A bidder, who is dissatisfied with the decision, may appeal that decision.

D. If it is determined that one or more of the M/WBE contractors submitted by the bidder on form EEO-190 is not SOMWBA certified, the bidder shall have ten (10) working days, following notification to either find a certified M/WBE to perform work equal to or greater than that of the uncertified contractor or to submit a required for waiver pursuant to this section.

V. M/WBE PARTICIPATION

A. Reporting Requirements

1. The contractor is required to submit Quarterly M/WBE Activity Report within ten (10) days following the reporting period. These reports shall include all minority and women businesses performing work on the project during the reporting period (See Attached Form EEO-290). For auditing and accounting purposes, the General Contractor periodically may be required to submit copies of canceled checks verifying that payment shave been made to the M/WBE as listed on the schedule.

2. The contractor is required to submit a completed **Certificate of Work Start-Up** by Minority and Women Business Enterprise within ten (10) days of work start-up for each M/WBE identified in the "Schedule of Participation of MBEs and WBEs or working on the contract activity. The form must be signed by both the contractor and the M/WBE prior to submittal to the Agency. (See attached Form EEO-390).

3. The contractor shall not perform any work designated for the named M/WBE on the Schedule submitted under Part I hereof, with it's own organization or subcontractor(s) or any other contractor, without the prior written approval of the Agency.

4. During the life of the contract, the contractor's fulfillment of the percentage requirements in Part I shall be determined with reference to the contract price as follows:

   a. If the price in the contract executed exceeds the base bid price (e.g. because an alternate was selected or because unit prices were used in awarding the contract), the contractor shall submit for approval by the agency a revised Schedule of Participation by MBEs and WBEs satisfying the percentage requirements and

such other information concerning additional M/WBE participation as may be requested by the Agency.

b. If the contract price increases after execution due to change orders or other adjustments, the Agency may require the contractor to subcontract additional work to or to purchase additional goods and services from MBEs and WBEs up to the percentages stated in Part I.

VI. COMPLIANCE

A. If the Schedule or any of the Letters of Intent are materially incomplete, the Local Government Unit may rescind its vote of award; treat the bid informal as to substance and reject the bid. If the bid is incomplete in any other respect than the Schedule, the Local government Unit, with the approval of the Agency may waive the informalities upon satisfactory completion of the required information by the Contractor and the M/WBE, as applicable.

B. If the Local Government Unit finds that the percentage of M/WBE participation submitted by the contractor on its Schedule does not meet the requirements in Part I, it may rescind its vote of award and find such contractor not to be eligible for award of the contract.

C. The contractor shall not perform with its own organization, or subcontract to any other primary or subcontractor any works designated for the names M/WBEs on the schedule submitted by the prime contractor sunder Part III without the approval of the Agency.

D. A contractor's compliance with the percentage requirements in Part I shall continue to be determined by reference to the required percentage of the total contract price as stated in Section I, even though the total of actual contract payments may be greater or less than the bid price.

E. If the general contractor, for reasons beyond its control, cannot comply with Part III, in accordance with the Schedule submitted under Part III, section B, the contractor must submit to the Compliance Unit as soon as they are aware of the deficiency, the reason for its inability to comply.

Proposed revisions to the Schedule stating how the contractor intends to meet its obligations under these conditions must be submitted within ten (10) working days of notification.

F. Any change or substitution of the officers or stockholders in an M/WBE organization that reduces the ownership or control to fewer than 51% by minority person(s)/Women or less than the requisite percentage shall be grounds for immediate rescission of the M/WBE status. Contractor's compliance with this special provision obligation will be considered terminated immediately upon notification that the M/WBE designation has been rescinded, and the Contractor shall proceed by notifying SOMWBA and the Compliance Unit as stated above in subsection (C).

G. If an M/WBE listed by the general bidder in its Schedule of M/WBE contractors fails to obtain a performance or payment bond requested by the general bidder, said failure shall not entitle the bidder to avoid the requirements of Part III (A). After a general bidder has been awarded to contract, he shall not change the M/WBE listed in its Schedule at the time of award or make any other such substitution without the written approval of the Agency.

H. The contractor and the M/WBEs shall comply with all reporting requirements of the Compliance Unit to demonstrate ongoing compliance with the Schedule of Participation and the Letters of Intent.

VII. EQUAL EMPLOYMENT OPPORTUNITY FOR THE HANDICAPPED

The contractor shall comply with the provisions of the Executive Order No. 143 entitled "Equal Employment Opportunity for the Handicapped" which is herein incorporated by reference and made a part of this contract. In connection with the performance of work under this contract, the contractor, sub-contractors and suppliers of goods and services must give written notice of their commitments under this Article to any Labor Union, association or brotherhood with which they have a collective bargaining contract or other agreement. A copy of such notice must be furnished to the Grantee at the time of signing of the contract.

VIII SANCTIONS

A. If the contractor does not comply with the terms of these Special Provision, the Awarding Authority may (1) suspend any payment for the work that should have been performed by a M/WBE pursuant to the schedule, or (2) require specific conformance of the contractor's obligations by requiring the contractor to subcontract with a M/WBE for any contract or specialty item at the contract price established for that item in the proposal submitted by the Contractor.

B. To the extent that the contractor has not complied with the terms of these Special Provisions, the Awarding Authority may retain in connection with Estimates and Payments an amount determined by multiplying the bid price of this contract by the percentage in Section I, less the amounts paid to M/WBEs for work performed under the contract and any payments already suspended under VIII A.

C. In addition or as an alternative, to the remedies under VIII-A and B, the Awarding Authority may suspend, terminate or cancel this contract, in whole or in part, or may call upon the contractor's surety to perform all terms and conditions in the contract, unless the contractor is able to demonstrate his compliance with the terms of these Special Provision, and further deny to the contractor, the right to participate in any future contracts awarded by the Awarding Authority for a period of up to three years.

D. In any proceeding involving the imposition of sanctions by the Awarding Authority, no sanctions shall be imposed if the Awarding Authority finds that the contractor has taken every possible measure to comply with these

Special Provisions or that some other justifiable reason exists for waiving these Special Provisions in whole or in part.

E. The contract shall provide such information as is necessary in the judgement of the Awarding Authority to ascertain its compliance with the terms of these Special Provisions.

IX. HEARINGS AND APPEALS

A. No sanctions under Section VIII shall be imposed by the Awarding Authority except in an adjudicatory proceeding under Chapter 30A of the Mass. General Laws.

B. A contractor shall have the right to request suspension of any sanctions imposed under Section VIII upon demonstrating that he is in compliance with these Special Provisions.

SCHEDULE OF PARTICIPATION
MINORITY AND WOMEN BUSINESS ENTERPRISE

ITEM I - Minority Business Enterprise Participation in the Works

Name and Address of MBE	Nature of Participation	Dollar Value of Participation
1. _____.		
2. _____.		

Total MBE Commitment: _____.

Percentage MBE Participation (Total Commitment) / (Total Bid Price) = _____

ITEM II - Women's Business Enterprise Participation in the Works

Name and Address of WBE	Nature of Participation	Dollar Value of Participation
1. _____-		
2. _____.		

Total WBE Commitment: _____.

Percentage WBE Participation (Total Commitment) / (Total Bid Price) = _____.

The bidder agrees to furnish implementation reports as required by the Awarding Authority to indicate the M/WBE which it has used or intends to use. Breach of this commitment constitutes a breach of contract.

Name of General Bidder: _____

Date:_____ By:_____
.
(Signature)

Note: Participation of a minority-owned or women-owned enterprise may be counted in only one category; the same participation cannot be used in computing the percentage of the Minority Participation and again of Women Participation.

THIS FORM MUST BE SUBMITTED WITH THE BID. EEO-190

LETTER OF INTENT - MINORITY BUSINESS ENTERPRISE

This form is to be completed by the MBE and must be submitted by the General Contractor as part of the bid proposal. A separate form must be completed for each MBE and WBE involved in the project.

Project Title:_____**Project Location:**_____.

TO:_____
(Name of Bidder)

FROM:_____
(Name of MBE)

☐ I/We intend to perform work in connection with the above project as:

[ ] an individual [ ] a partnership
[ ] a corporation [ ] a joint venture with _____.
[ ] other (explain):_____.

☐ It is understood that if you are awarded the contract, you intend to enter into an agreement to perform the activity described below for the prices indicated.

MBE Participation

Description of Activity	Project Date Commencement	$ Amount	% of Bid Price

The undersigned certify that they will enter into a formal agreement upon execution of the contract for the above referenced project.

BIDDER **MBE**

_____ _____.
(Authorized Signature) DATE (Authorized Signature) DATE

ADDRESS:_____ ADDRESS:_____.

_____ _____.

PHONE: (__)_____ PHONE: (__)_____.

****Copy of SOMWBA Certification Letter Must Be Attached and Submitted with Bid.**

LETTER OF INTENT – WOMEN'S BUSINESS ENTERPRISE

This form is to be completed by the WBE and must be submitted by the General Contractor as part of the bid proposal. A separate form must be completed for each MBE and WBE involved in the project.

Project Title:_____ **Project Location:**_____

TO: _____
(Name of Bidder)

FROM:_____
(Name of WBE)

☐ I/We intend to perform work in connection with the above project as:

[ ] an individual [ ] a partnership
[ ] a corporation [ ] a joint venture with _____.
[ ] other (explain):_____.

☐ It is understood that if you are awarded the contract, you intend to enter into an agreement to perform the activity described below for the prices indicated.

WBE Participation

Description of Activity	Project Date Commencement	$ Amount	% of Bid Price

The undersigned certify that they will enter into a formal agreement upon execution of the contract for the above referenced project.

BIDDER **WBE**

_____ _____.
(Authorized Signature) DATE (Authorized Signature) DATE

ADDRESS:_____ADDRESS:_____.

_____ _____.

PHONE: (__)_____PHONE: (__)_____.

****Copy of SOMWBA Certification Letter Must Be Attached and Submitted with Bid.**

REQUEST FOR WAIVER
MINORITY AND WOMEN BUSINESS ENTERPRISE PARTICIPATION

Upon exhausting all known sources and making every possible effort to meet the minimum requirements for MBE/WBE participation, the Contractor may seek relief from these requirements by filing this form (completed) **NO LATER THAN FIVE (5) WORKING DAYS** following the bid opening. Failure to comply with this process shall be cause to reject the bidder, thereby rendering the contractor not eligible for award of the contract.

General Information

Project Title:_____ Project location:_____

Bid Opening (time/date):_____ Location :_____.

Bidder :_____

Mailing Address::_____

ContactPerson:_____

_____

Telephone Number: (____)_____ Ext. _____.

Minimum Requirements

The contractor must show that good faith efforts were undertaken to comply with the percentage goals as specified. The bidder seeking relief must show that such efforts were taken appropriately in advance of the time set for opening bid proposals to allow adequate time for response(s) by submitting the following:

A. A detailed record of the effort made to contact and negotiate with minority and/or woman owned businesses, including:

1. Names, addresses and telephone numbers of all such operations contacted:

2. copies of written notice(s) which were sent to MBE/WBE potential subcontractors prior to bid opening;

3. copies of advertisements prior to bid opening as appearing in general publications, trade-oriented publications, and applicable minority/women focus media detailing the opportunities for participation;

4. a detailed statement as to why each subcontractor contacted (I) was not willing to do the job or (ii) was not qualified to perform the work as solicited; and

5. in the case(s) where a negotiated price could not be reached, the bidder should detail what efforts were made to reach an agreement on a competitive price.

B. The Agency may require the contractor to produce such additional information as it deems appropriate and may obtain whatever other information it deems necessary to reach a conclusion from any source.

C. No later than fifteen (15) days after receipt of all necessary information and documentation, a decision will be made in writing to the bidder. If the waiver request is denied, the facts upon which a denial is based will be set forth. A contractor who is dissatisfied with the decision may then appeal that decision to the EOEA.

Special Note:

If it is determined that one or more of the MBE/WBE contractors, as submitted by the contractor on form EEO-190, is not SOMWBA certified by the Local Government Unit in accordance with the provision of Executive Order 237, the bidder shall have ten (10) working days, following notification to either find a certified MBE/WBE contractor to perform work equal to or greater than that of the uncertified contractor or submit a waiver request.

CERTIFICATION

The undersigned herewith certifies that the above information and appropriate attachments are true and accurate to the best of my ability and that I have been authorized to act on behalf of the bidder in this matter.

_____ _____.

(Authorized Signature) (DATE)

EEO-490

SUPPLEMENTAL EQUAL EMPLOYMENT OPPORTUNITY ANTI-DISCRIMINATION AND AFFIRMATIVE ACTION PROGRAM

THE COMMONWEALTH OF MASSACHUSETTS
SUPPLEMENTAL EQUAL EMPLOYMENT OPPORTUNITY, ANTI-DISCRIMINATION AND AFFIRMATIVE ACTION PROGRAM

CONTRACT COMPLIANCE PROCEDURE

Pursuant to Section XI of the Commonwealth of Massachusetts Supplemental Equal Employment Opportunity, Anti-Discrimination and Affirmative Action Program for construction contracts, the administering and/or the contracting agency's Contract Compliance Officer or the Affirmative Action Staff is the designated agent of the Massachusetts Commission Against Discrimination (MCAD). The responsibilities of the Contract Compliance Officer (MCAD agent) are to conduct compliance monitoring and enforcement of the program requirements.

To ensure that the minority workforce utilization goals on all construction contracts in excess of $50,000. as well as minority/women business enterprise (M/WBE) goals are enforced effectively, the following procedures will be followed commencing with the initial contract specifications preparation and continuing throughout the life of the contract on all projects:

1. Contract Specifications
2. Bid Advertisement
3. Pre-Bid Conference
4. Pre-Construction Conference
5. Reporting System
6. Monitoring System
7. Identifying and Reporting of Non-Compliance
8. Non-Compliance Procedures
9. Recommendation and Sanction

1. CONTRACT SPECIFICATION

At the initial stage of contract specification preparation, the Contract Compliance Officer of the contracting agency must ensure the incorporation of the proper EEO/AA provisions in the general conditions of the contract.

2. BID ADVERTISEMENT

The Contract Compliance Officer will review all Bid advertisements before the notice is published to ensure that reference to the EEO/AA requirements is included.

3. PRE-BID CONFERENCE

At the Pre-bid Conference, the Contract Compliance Officer will inform potential bidders of the EEO/AA requirements of the contract. These include, but are not limited to the following:

a. Adhering to minority workforce utilization and M/WBE participation goals for the contract.

b. Informing potential bidders that the requirements are for the life of the contract.

c. Informing potential bidders that the Sub-Contractors are obligated to comply with the same requirements and it is the responsibility of the Prime Contractor to ensure that Sub- Contractors comply with the contract provisions.

d. Informing potential bidders of the required documents and forms that they must sign and submit with their bids, i.e., Bidder's Certification: Schedules of M/WBE Participation: M/WBE Letter of Intent: etc..

e. Making information and/or resources available for M/WBE: i.e., State Office of Minority/Women Business Assistance (SOMWBA): Contractors Association of Boston (CAB): Small Business Development Corporation (SBDC); New England Minority Purchasing Council (NEMPC) and any other information that will assist the Prime Contractor in attaining the stated goals for M/WBE compliance.

f. Making available minority workforce referral agencies, i.e., Community agencies: Third World Jobs Clearing House, Apprentice Recruitment Program, etc..

g. Question and answer period.

4. PRE-CONSTRUCTION CONFERENCE

At the Pre-Construction Conference, the Contract Compliance Officer will discuss the specific EEO/AA requirements with the Prime and Sub-Contractors. The Contract Compliance Officer will also:

a. Distribute all necessary documents and reporting forms as required under the contract provisions.

b. Review EEO/AA requirements and goals in detail.

c. Explain the contractor's obligations to comply with the EEO/AA requirements and goals.

d. Emphasize the EEO/AA provisions in Sections III and Section XIV of the Modified Supplemental Equal Employment Opportunity, Anti-Discrimination and Affirmative Action Program.

e. Provide information such as resources of minority workforce and M/WBE referrals to assist the contractor in achieving compliance with the contract obligations.

f. Review the necessary reporting forms, i.e. Contractor's Quarterly Projected Workforce Table (Form CAD 85-1), Contractor's Weekly Workforce Utilization Report (Form CAD 85), Contractor Certification (Attachment A-1 for Prime Contractor, (Attachment A-2 for Sub-Contractor), etc..

g. Secure the name and title of the EEO/AA Officer and Project Manager from the contractor with a letter signed by the Chief Executive Officer of the Contractor.

5. REPORTING SYSTEM

To ensure the proper compliance of the contractor's obligations in the utilization of his/her workforce, the following reporting system will be implemented:

a. Contractors must submit the Contractor's Quarterly Projected Workforce Table (CAD 85-1) prior to the commencement of work and no later than five (5) working days prior to the start of each new quarter to the Contract Compliance Officer.

b. Contractors must submit the Contractor's Weekly Workforce Utilization Report (CAD 85) to the Contract Compliance Officer no later than the following Tuesday of each week.

c. The Prime Contractor is responsible for the submission of all reports from all of his/her sub-contractors.

d. The Contracting/Administering Agency's Contract Compliance Officer must prepare the Agency's Monthly Contract Compliance Report (CAD75) for Minority Workforce Utilization and M/WBE Contract Activities Report and send them to MCAD no later than the 15th of the month following the end of each quarter.

6. MONITORING SYSTEM

In order for the Contract Compliance Officer to effectively implement and enforce the EEO/AA requirements, the following mechanism will be utilized:

a. Review of the weekly utilization reports submitted by the contractors.

b. Verify the date on the weekly reports, by conducting on-site monitoring.

(1) On-site monitoring will be conducted either on a weekly or daily basis according to specific projects.

(2) When conducting on-site monitoring, the Contract Compliance Officer will initially meet with the contractor's on-site supervisor to obtain the necessary data.

(3) The Contract Compliance Officer will conduct a visual head count of all the workers on-site used by each contractor, identifying the minority workers for each trade. If needed, an interview of each worker may be conducted to verify the information submitted by the contractor.

7. IDENTIFYING AND REPORTING OF NON-COMPLIANCE

When the contractor's Weekly Workforce Utilization Reports indicate that the contractor is in a condition of non-compliance and it is then verified by the Contract Compliance Officer's actual on-site visit, the procedures are as follows:

a. The Contract Compliance Officer will notify and meet with the contractor to remedy their conditions of non-compliance in and attempt to bring the contractor into compliance. All activities with the contractor must be documented.

b. If the Contract Compliance Officer is unable to bring the contractor into compliance, then the Contract Compliance Officer shall send a preliminary notification of apparent non-compliance, citing specific sections of the contract EEO/AA provisions to the Prime Contractor and/or the Sub-Contractor via Registered Mail, detailing the necessary remedies and granting a time-frame of (14) days for the contractor to come into compliance.

c. If the contractor remains in non-compliance, then the Contract Compliance Officer shall notify the MCAD and issue a second notice of apparent non-compliance, informing the contractor that a formal non-compliance investigation will be conducted. This will include a request for specific

records and documentation that the contractor must submit within the specific compliance time frame of 14 days.

8. NON-COMPLIANCE PROCEDURES

a. Upon the completion of the investigation, if it is found that the contractor is still in a condition of non-compliance, then a final notice of apparent non-compliance will be issued, informing the contractor that a formal complaint of non-compliance will be filed at MCAD.

b. When a non-compliance complaint is filed at MCAD, the complaint must include all documentation, such as reports; on-site reviews; correspondences; minutes of meeting and a copy of the contract.

c. MCAD will conduct a conciliation conference in an attempt to bring the contractor into compliance. If the conference is unsuccessful, the MCAD will conduct an adjudicatory hearing pursuant to M.G.L. Chapter 30A and 804 CMR 9.00.

d. The adjudicatory hearing will provide an opportunity for the contractor to present proof of his/her efforts to comply with the EEO/AA requirements. If the contractor can document that he/she has exhausted every possible measure to achieve compliance, then the contractor would be found in compliance with the EEO/AA contract obligations. If the contractor is unable to document every possible measure taken, then the contractor can be found in non-compliance. A final report of non-compliance will then be issued.

9. RECOMMENDATIONS OF SANCTIONS

At the adjudicatory hearing, if the contractor is found to be in non-compliance with the EEO/AA requirements, MCAD will make a final report of non-compliance. Once MCAD issues a final finding of non-compliance. MCAD will recommend that the administering contracting agency impose on the contractor one or more of the sanctions outlined in the Commonwealth of Massachusetts Modified Supplemental Equal Employment Opportunity, Anti-Discrimination and Affirmative Action Program Section XIV within fourteen (14) days.

NOTE: (1) Non-compliance investigation will NOT be conducted without prior notice to the contractor.
(2) Sanctions will NOT be imposed without providing an adjudicatory hearing (Due Process) to the Contractor.

Attachment A-1

Contractor's Certification

A contractor will not be eligible for award of a contract unless such contractor has submitted the following certification, which is deemed a part of the resulting contract:

CONTRACTOR'S CERTIFICATION

_____

Name of the General Contractor

certifies that:

1. It intends to use the following listed construction trades in the work under contract:

_____

_____

2. Will comply with the minority workforce ratio and specific affirmative action steps contained herein: and

3. Will obtain from each of its subcontractors and submit to the contracting or administering agency prior to the award of any subcontract under this contract the subcontractor's certification required by these bid conditions.

_____

Signature of Authorized
Representative or Contractor

Attachment A-2

Subcontractor's Certification

Prior to the award of any subcontract, regardless of tier, the prospective subcontractor must execute and submit to the General Contractor the following certification, which will be deemed a part of the resulting subcontract:

SUBCONTRACTOR'S CERTIFICATION

_____

Name of the Subcontractor

certifies that:

1. It intends to use the following construction trades in the work under the contract:

   _____

   _____

2. Will comply with the minority workforce ratio and specific affirmative action steps herein: and

3. Will obtain from each of its subcontractors prior to the award of any subcontract under this contract the subcontractor's certification required by these bid conditions.

_____

Signature of Authorized
Representative of Subcontractor

Attachment B

BIDDER'S CERTIFICATION

The undersigned bidder hereby certifies he/she will comply with the minority workforce percentage ratio and specific affirmative action steps contained in the EEO/AA provisions of this Contract. Including compliance with the Minority/Woman Business Enterprise as required under these contract provisions. The contractor receiving the award of the contract shall be required to obtain from each of its subcontractors a copy of the bidder's certification and submit it to the contracting agency prior to the award of such subcontract, regardless of tier, that it will comply with the minority workforce ratio and specific affirmative action steps contained in these

EEO/AA contract provisions.

_____
Signature of Bidder

_____
Name of Firm

_____
Title

_____
Date

COMMONWEALTH OF MASSACHUSETTS
CONTRACTOR'S WEEKLY WORKFORCE UTILIZATION REPORT

PROJECT NAME: *New Housing* CONTRACT # *C-581-A* CONTRACT VALUE: *$5,900,000* MINORITY HIRING GOAL: *10%*

NAME & ADDRESS OF GENERAL CONTRACTOR: *Prime Contractor Inc, 1 Boston St., Boston, MA 02111.* TEL. NO.: *617-467-0000*

NAME & ADDRESS OF CONTRACTOR FILING REPORT: *A Sub-Contractor Inc., 100 Mass St., Boston, MA 02222* TEL. NO.: *617-469-1111*

WEEK ENDING: *March 6, 1987* REPORT # *3* DATE WORK BEGAN *2/16/87* CHECK HERE IF THIS IS A FINAL REPORT

DATE WORK COMPLETED _____ REPORT BY: *John Smith* TITLE: *EEO* REPORTING DATE: *March 9, 1987*

JOB CATEGORY	NO. EMP.	WEEKLY TOTAL WORKHOURS	NO. MIN.	WEEKLY TOTAL MIN. HOURS	MIN %	TOTAL WORKFORCE UTILIZATION SINCE CONTRACT BEGAN			REMARKS
						WORKHOURS TO DATE	MIN. HOURS TO DATE	MIN % TO DATE	
Foreman	*1*	*40*	*0*			*120*	*0*		
Carpenter	*4*	*160*	*1*	*40*	*25%*	*400*	*60*	*15%*	
Labor	*10*	*400*	*1*	*40*	*10%*	*1000*	*120*	*12%*	
TOTAL	*15*	*600*	*2*	*80*	*13.3%*	*1620*	*180*	*11%*	

FORM: CAD 85

SAMPLE

COMMONWEALTH OF MASSACHUSETTS
CONTRACTOR'S WEEKLY WORKFORCE UTILIZATION REPORT

PROJECT NAME: _____ CONTRACT NO.: _____ CONTRACT VALUE: $ _____ MINORITY HIRING GOAL: _____

NAME & ADDRESS OF GENERAL CONTRACTOR: _____ TEL. NO.: _____

NAME & ADDRESS OF CONTRACTOR FILING REPORT: _____ TEL. NO.: _____

WEEK ENDING: _____ REPORT NO: _____ DATE WORK BEGAN: _____ CHECK HERE IF THIS IS A FINAL REPORT: ☐

DATE WORK COMPLETED: _____ REPORT BY: _____ TITLE: _____ REPORTING DATE: _____

JOB CATEGORY	NO. EMP.	WEEKLY TOTAL WORKHOURS	NO. MIN.	WEEKLY TOTAL MIN. HOURS	MIN. %	TOTAL WORKFORCE UTILIZATION SINCE CONTRACT BEGAN			REMARKS
						WORK HOURS TO DATE	MIN. HOURS TO DATE	MIN. % TO DATE	

FORM: CAD 85

COMMONWEALTH OF MASSACHUSETTS
CONTRACTORS QUARTERLY PROJECTED WORKFORCE TABLE

NAME OF CONTRACTOR: A Sub-Contractor Inc.

ADDRESS: 1 Boston St., Boston, MA 02111

CONTRACTING AGENCY: MCAA

PROJECT NAME: New Housing

CONTRACT DOLLAR VALUE: $5,900,000

CONTRACT NO.: C-581-1

TRADES UTILIZED: Foreman, Carpenter, Laborer

ESTIMATE TOTAL HOURS TO COMPLETE WORK: 5900 Hours

QUARTER BEGIN: January 1, 1987

END: March 31, 1987

PREPARED BY: John Smith, EEO

DATE: Dec. 20, 1986

NOTE: ***A revised table must be submitted if there are any changes of projections.***

WEEK ENDING	TRADES	PROJECTED TOTAL WORKHOURS	PROJECTED MIN. HOURS	REMARKS
2/13/87	NO WORK			
2/20/87	*Foreman*	*40*	*0*	
2/27/87	*Labor*	*80*	*4 0*	
3/6/87	*Foreman*	*40*	*0*	
	Carpenter	*120*	*40*	
	Labor	*200*	*40*	
3/13/87	NO WORK			
3/20/87	*Carpenter*	*80*	*0*	
3/27/87	*Labor*	*200*	*40*	

FORM: CAD 85-1

SAMPLE

COMMONWEALTH OF MASSACHUSETTS
CONTRACTORS QUARTERLY PROJECTED WORKFORCE TABLE

NAME OF CONTRACTOR: _____

ADDRESS: _____

CONTRACTING AGENCY: _____ PROJECT NAME: _____

CONTRACT DOLLAR VALUE: _____ CONTRACT NO.: _____

TRADES UTILIZED: _____

ESTIMATE TOTAL HOURS TO COMPLETE WORK _____

QUARTER BEGIN: _____ END: _____

PREPARED BY: _____ DATE: _____

NOTE: ***A revised table must be submitted if there are any changes of projections.***

WEEK ENDING	TRADES	PROJECTED TOTAL WORKHOURS	PROJECTED MIN. HOURS	REMARKS

FORM: CAD 85-1

COMMONWEALTH OF MASSACHUSETTS
QUARTERLY CONTRACT COMPLIANCE REPORT

CONTRACTING AGENCY	REPORT PERIOD	REPORTING DATE	REPORTING AGENT, TITLE

DATE OF AWARD	PROJECT NAME	CONTRACT NO.	CONTRACT $	CONTRACTOR NAME	WORK HOURS	MIN. HRS.	MIN. %	REMARKS

FORM: CAD 75

(For use in Division of Municipal Services Loan-Assisted Projects)

THE COMMONWEALTH OF MASSACHUSETTS
MODIFIED
SUPPLEMENTAL EQUAL EMPLOYMENT OPPORTUNITY
ANTI-DISCRIMINATION AND AFFIRMATIVE ACTION PROGRAM

I. For purposes of this contract, "minority" refers to Asian-American, Blacks, Spanish Surnamed Americans, North American Indians, and Cape Verdeans. "Commission" refers to the Massachusetts Commission Against Discrimination.

II. During the performance of this contract, the Contractor and all of (his) Sub-contractors (hereinafter collectively referred to as the Contractor), for himself, his assignees, and successors in interest, agree as follows:

1. In connection with the performance of work under this contract, the Contractor shall not discriminate against any employee or applicant for employment because of race, color, religious creed, national origin, age or sex. The aforesaid provision shall include, but not be limited to, the following: employment upgrading, demotion, or transfer: recruitment advertising; recruitment layoff; termination; rates of pay or other forms of compensation; conditions or privileges of employment; and selection for apprenticeship. The Contractor shall post hereafter in conspicuous places, available for employees and applicants for employment, notices to be provided by the Commission setting forth the provisions of the Fair Employment Practices Law of the Commonwealth (M.G.L. Chapter 151B).

2. In connection with the performance of work under this contract, the Contractor shall undertake in good faith affirmative action measures designed to eliminate any discriminatory barriers in the terms and conditions of employment on the grounds of race, color, religious creed, national origin, age or sex, and to eliminate and remedy any effects of such discrimination in the past. Such affirmative action shall entail positive and aggressive measures to ensure equal opportunity in the areas of hiring, upgrading, demotion or transfer, recruitment, layoff or termination, rate of compensation, and in-service or apprenticeship training programs. This affirmative action shall include all action required to guarantee equal employment opportunity for all persons, regardless of race, color, religious creed, national origin, age, or sex. A purpose of this provision is to ensure to the fullest extent possible an adequate supply of skilled tradesmen for this and future Commonwealth public construction projects

III. 1. As part of his obligation of remedial action under the foregoing section, the Contractor shall maintain on this project a not less than _____ percent ratio of minority employee man hours to total man hours in each job category including but not limited to bricklayers, carpenters, cement masons, electricians, ironworkers, operating engineers, and those "classes of work" enumerated in Section 44C of Chapter 149 of the Massachusetts General Laws.

2. In the hiring of minority journeymen, apprentices, trainees and advanced trainees, the Contractor shall rely on referrals from a multi-employer affirmative action program approved by the Commission, traditional referral methods utilized by the construction industry, and referrals from agencies, not more than three in number at any one time, designated by the Liaison Committee or the Commission.

IV. 1. At the discretion of the Commission there may be established for the life of this contract a body to be known as the Liaison Committee. The Liaison Committee shall be

composed of one representative each from the agency or agencies administering this project, hereinafter called the administering agency, the Commission and such other representatives as may be designated by the Commission in conjunction with the administering agency.

2 The Contractor (or his agent, if any, designated by him as the on-site equal employment opportunity officer) shall recognize the Liaison Committee as an affirmative action body, and shall establish a continuing working relationship with the Liaison Committee, consulting with the Liaison Committee on all matters related to minority recruitment, referral, employment and training.

3. The Contractor shall prepare projected manning tables on a quarterly basis. These shall be broken down into projections, by week, or workers required in each trade. Copies shall be furnished one week in advance of the commencement of the period covered, and also when updated, to the Commission and Liaison Committee.

4. Records of employment referral orders, prepared by the Contractor, shall be mad available to the Commission and to the Liaison Committee on request.

5. The Contractor shall prepare weekly reports in a form approved by the Commission of hours worked in each trade by each employee, identified as minority or non-minority. Copies of these shall be provided at the end of each such week to the Commission and to the Liaison Committee.

V. If the Contractor shall use any subcontractor on any work performed under this contract, he shall take affirmative action to negotiate with qualified minority subcontractors. This affirmative action shall cover both pre-bid and post-bid periods. It shall include notification to the Office of Minority Business Assistance (within the Executive Office of Communities and Development) or its designee, while bids are in preparation, of all products, work or services for which the Contractor intends to negotiate bids.

VI. In the employment of journeymen, apprentices, trainees and advanced trainees, the Contractor shall give preference, first, to citizens of the Commonwealth who have served in the armed forces of the United States in time of war and have been honorably discharged therefrom or released from active duty therein, and who are qualified to perform the work to which the employment relates, and, secondly, to citizens of the Commonwealth generally, and, if such cannot be obtained in sufficient numbers, then to citizens of the United States.

VII. A designee of the Commission and a designee of the Liaison Committee shall each have the right of access to the construction site.

VIII. Compliance with Requirements

The Contractor shall comply with the provisions of Executive Order No. 74, as amended by Executive Order No. 116 dated May 1, 1975, and of Chapter 151B as amended, of the Massachusetts General Laws, both of which are herein incorporated by reference and made a part of this contract.

IX. Non-Discrimination

The Contractor, in the performance of all work after award, and prior to completion of the contract work, will not discriminate on grounds of race, color, religious creed, national origin, age or sex in employment practices, in the selection or retention of subcontractors, or in the procurement of materials and rentals of equipment.

X. Solicitations for Sub-Contracts, and for the Procurement of Materials and Equipment

In all solicitations either by competitive bidding or negotiation made by the Contractor either for work to be performed under a subcontract or for the procurement of materials or equipment, each potential subcontractor or supplier shall be notified in writing by the Contractor of the Contractor's obligations under this contract relative top non-discrimination and affirmative action.

XI. Bidders Certification Requirement

1. The following certification statement will be inserted in the bid document just above the bidder's signature:

   "The Bidder hereby certifies he shall comply with the minority manpower ratio and specific action steps contained in the supplemental Equal-Employment Opportunity Anti-Discrimination and Affirmative Action Plan (Supplemental EEO) attached hereto, including compliance with the minority contractor compliance specified therein. The contractor receiving the award of the contract shall be required to obtain from each of its subcontractors and submit to the contracting agency prior to the performance of any work under said contract a certification by said subcontractor, regardless of tier, that it will comply with the minority manpower ratio and specific affirmative action steps contained in the Supplemental EEO."

XII. Contractor's Certification

The Contractor's certification form must be signed by all successful low bidder(s) prior to award by the contracting agency. (See attachment).

XIII. Compliance-Information, Reports and Sanctions

1. The Contractor will provide all information and reports required by the contracting agency or the Commission on instructions issued by either of them and will permit access to its facilities and any books, records, accounts and other sources of information which may be determined by the Commission to affect the employment of personnel. This provision shall apply only to information pertinent to the Commonwealth's supplementary affirmative action contract requirements. Where information required is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to the contracting agency or the Commission as appropriate and shall set forth what efforts he has made to obtain the information. For the purpose of this Article XIII, the Commission's designated agent is the contracting agency.

2. Whenever the contracting agency, the Commission, or the Liaison Committee believes the General Contractor or any Subcontractor may not be operating in compliance with the terms of this Section, the Commission directly, or through its designated agent, shall conduct an appropriate investigation, and may confer with the parties, to determine if such Contractor is operating in compliance with the terms of this Section. If the Commission or its agent finds the General Contractor or any subcontractor not in compliance, it shall make a preliminary report on non-compliance, and notify such Contractor in writing of such steps as will in the judgment of the Commission or its agent

bring such Contractor into compliance. In the event that such Contractor fails or refuses to fully perform such steps, the Commission shall make a final report of non-compliance, and recommend to the contracting agency the imposition of one or more of the sanctions listed below. If, however, the Commission believes the General Contractor or any Subcontractor has taken or is taking every possible measure to achieve compliance, it shall not make a final report of non-compliance. Within fourteen days of the receipt of the recommendations of the Commission, the contracting agency shall move to impose one or more of the following sanctions, as it may deem appropriate to attain full and effective enforcement.

a. The recovery by the contracting agency from the General Contractor of 1/100 of 1% of the contract award price or $1000 whichever sum is greater, in the nature of liquidated damages or, if a Sub- contractor is in non-compliance, the recovery by the contracting agency from the General Contractor, to be assessed by the General Contractor as a back charge against the Subcontractor, of 1/10 of 1% of the subcontract price, or $400 whichever sum is greater, in the nature of liquidated damages, for each week that such party fails or refuses to comply;

b. The suspension of any payment or part thereof due under the contract until such time as the General Contractor or any Subcontractor is able to demonstrate his compliance with the terms of the contract;

c. The termination, or cancellation, of the contract, in whole or in part, unless the General Contractor or any Subcontractor is able to demonstrate within a specified time his compliance with the terms of the contract;

d. The denial to the General Contractor or any Subcontractor of the right to participate in any future contracts awarded by the contracting agency for a period of up to three years.

3. If at any time after the imposition of one or more of the above sanctions a Contractor is able to demonstrate that he is in compliance with this Section, he may request the contracting agency, in consultation with the Commission, to suspend the sanctions conditionally, pending a final determination by the Commission as to whether the Contractor is in compliance. Upon final determination of the Commission, the contracting agency, based on the recommendation of the Commission, shall either lift the sanctions or reimpose them.

4. Sanctions enumerated under Sections XI-2 shall not be imposed by the contracting agency except after an adjudicatory proceeding, as that term is used M.G.L. c. 30A, has been conducted. No investigation by the Commission or its agent shall be initiated without prior notice to the Contractor.

XIV. Severability

The provisions of this section are severable, and if any of these provisions shall be held unconstitutional by any court of competent jurisdiction, the decision of such court shall not affect or impair any of the remaining provisions.

STATE AND STATE ASSISTED CONTRACTS WITHIN THE COMMONWEALTH OF MASSACHUSETTS

The following percentages shall apply:	No Less Than
Boston: Impact Area (Jamaica Plain (part), Mattapan, South Cove, Chinatown, Bay Village, Roxbury, Dorchester, South End)	30%
Others	10%
Cambridge	12%
New Bedford	18%
Springfield	10%
All other cities and towns	5%

12-2-75

A. Contractors' Certification

A contractor will not be eligible for award of a contract unless such contractor has submitted the following certification, which is deemed a part of the resulting contract:

CONTRACTOR'S CERTIFICATION

_____ certifies that:
Contractor

1. it tends to use the following listed construction trades in the work under the contract _____ ; and

2. will comply with the minority manpower ratio and specific affirmative action steps contained herein; and

3. will obtain from each of its subcontractors and submit to the contracting agency prior to the award of any subcontract under this contract and subcontractor certification required by these bid conditions.

_____
(Signature of authorized representative of contractor)

B. Subcontractors' Certification

Prior to the award of any subcontract, regardless of tier, the prospective subcontractor must execute and submit to the Prime Contractor the following certification, which will be deemed a part of the resulting subcontract:

SUBCONTRACTORS' CERTIFICATION

_____ certifies that:
Subcontractor

1. It tends to use the following listed construction trades in the work under the subcontract _____ _____ ; and

2. will comply with the minority manpower ratio and specific affirmative action steps contained herein; and

3. will obtain from each of the subcontractors prior to the award of any subcontract under this subcontract the subcontractor certification required by these bid conditions.

_____
(Signature of authorized representative of subcontractor)

In order to ensure that the said subcontractors' certification becomes a part of all subcontracts under the prime contract, no subcontract shall be executed until an authorized representative of the contracting agency administering this project has determined, in writing, that the said certification has been incorporated in such subcontract, regardless of tier. Any subcontract executed without such written approval shall be void.

ARRA BUY AMERICAN CERTIFICATION

1. Identification of American-made Iron, Steel, and Manufactured Goods: Consistent with the terms of the Purchaser's bid solicitation and the provisions of ARRA Section 1605, the Bidder certifies that this bid reflects the Bidder's best, good faith effort to identify domestic sources of iron, steel, and manufactured goods for every component contained in the bid solicitation where such American-made components are available on the schedule and consistent with the deadlines prescribed in or required by the bid solicitation.

2. Verification of U.S. Production: The Bidder certifies that all components contained in the bid solicitation that are American-made have been so identified, and if this bid is accepted, the Bidder agrees that it will provide reasonable, sufficient, and timely verification to the Purchaser of the U.S. production of each component so identified.

3. Documentation Regarding Non- American-made Iron, Steel, or Manufactured Goods: The Bidder certifies that for any component or components that are not American-made and are so identified in this bid, the Bidder has included in or attached to this bid one or both of the following, as applicable:

    a. Identification of and citation to a categorical waiver published by the U.S. Environmental Protection Agency in the Federal Register that is applicable to such component or components, and an analysis that supports its applicability to the component or components;

    b. Verifiable documentation sufficient to the Purchaser, as required in the bid solicitation or otherwise, that the Bidder has sought to secure American-made components but has determined that such components are not available on the schedule and consistent with the deadlines prescribed in the bid solicitation, with assurance adequate for the Bidder under the applicable conditions stated in the bid solicitation or otherwise.

4. Information and Detailed Justification Regarding Non-American-made Iron, Steel, or Manufactured Goods: The Bidder certifies that for any such component or components that are not so available, the Bidder has also provided in or attached to this bid information, including but not limited to the verifiable documentation and a full description of the bidder's efforts to secure any· such American-made component or components, that the Bidder believes are sufficient to provide and as far as possible constitute the detailed justification required for a waiver under section 1605 with respect to such component or components. The Bidder further agrees that, if this bid is accepted, it will assist the Purchaser in amending, supplementing, or further supporting such information as required by the Purchaser to request and, as applicable, implement the terms of a waiver with respect to any such component or components.

5. Manufacturers listed in the Technical Specifications: The Bidder understands that any manufacturer listed in Divisions 03 through 16 is not necessarily an approved manufacturer for ARRA funding and more specifically not verified to meet the “Buy American Requirements.”

ARRA BUY AMERICAN CONTRACT AGREEMENT

The Contractor acknowledges to and for the benefit of the City of Quincy ("Purchaser") and the State of Massachusetts (the "State") that it understands the goods and services under this Agreement are being funded with monies made available by the federal American Recovery and Reinvestment Act of 2009 (ARRA) (or are being made available for a project being funded with monies made available by the federal ARRA) and such law contains provisions commonly known as "Buy American;" that requires all of the iron, steel, and manufactured goods used in the project be produced in the United States ("Buy American Requirements") including iron, steel, and manufactured goods provided by the Contactor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Purchaser and the State that (a) the Contractor has reviewed and understands the Buy American Requirements, (b) all of the iron, steel, and manufactured goods used in the project will be and/or have been produced in the United States in a manner that complies with the Buy American Requirements, unless a waiver of the requirements is approved, and (c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the Buy American Requirements, as may be requested by the Purchaser or the State. Notwithstanding any other provision of this Agreement, any failure to comply with this paragraph by the Contractor shall permit the Purchaser or State to recover as damages against the Contractor any loss, expense or cost (including without limitation attorney's fees) incurred by the Purchaser or State resulting from any such failure (including without limitation any impairment or loss of funding, whether in whole or in part, from the State or any damages owed to the State by the Purchaser). While the Contractor has no direct contractual privity with the State, as a lender to the Purchaser for the funding of its project, the Purchaser and the Contractor agree that the State is a third-party beneficiary and neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without the prior written consent of the State.

Date _____, 2009

A Corporation

_____
(Name of General Bidder)

_____
(State of Incorporation)

By _____
(Name of Person Signing Bid and Title)

(Corporate Seal)

Attest _____
(Secretary)

_____
(Business Address)

_____
(City and State)

_____
(Telephone No.)

A Partnership

_____
(Name of General Bidder)

By _____
(General Partner)

(Seal)

_____
(Business Address)

_____
(City and State)

_____
(Telephone No.)

CHAPTER 30 OF THE ACTS OF 2009
AN ACT MOBILIZING ECONOMIC RECOVERY IN THE COMMONWEALTH
SECTION 33

(a) Notwithstanding any general or special law to the contrary, the following requirements shall apply to any public works project funded by the American Recovery and Reinvestment Act of 2009 where the amount of construction costs under any contract awarded is likely to exceed $1,000,000. For the purposes of this section, "public works" shall mean building or work the construction of which is carried on by authority of the commonwealth, or by a county, town, authority or district, or with funds of a federal agency or the commonwealth or a county, city, town, authority or district to serve the interest of the general public, regardless of whether title thereof is in the commonwealth or in a county, city, town, authority or district; provided, however, that for the purposes of this definition, "construction" shall have the meaning provided in section 27D of chapter 149 of the General Laws.

(b) For any public works project subject to subsection (a), the specifications set forth in any request for responses shall include a requirement that, on a per project basis, not less than 20 per cent of the total hours of employees receiving an hourly wage who are directly employed on the site of the project, employed by the contractor or a subcontractor and subject to the prevailing wage, shall be performed by apprentices in bona fide apprentice training programs as provided in sections 11H and 11I of chapter 23 of the General Laws which are approved by the division of apprentice training in the executive office of labor and workforce development.

(c) During the performance of a public works project subject to subsections (a) and (b), the contractor shall submit periodic reports to the awarding authority with records indicating the total hours worked by all journeymen and apprentices in positions subject to the apprentice requirement. In any instance in which the apprentice hours do not constitute 5 per cent of the total hours of employees subject to the apprentice requirement, the contractor shall submit a plan to the awarding authority describing how the contractor shall comply with the apprentice requirement.

(d) The attorney general shall have all the necessary powers to require compliance with the requirements of subsections (a), (b) and (c) therewith, including the power to institute and prosecute proceedings in the superior court to restrain the award of contracts and the performance of contracts. Prior to award of the contract, an awarding authority may petition the attorney general for approval to adjust the requirements set forth in said subsections (a), (b) and (c). The attorney general may adjust these requirements only if he determines that compliance with these requirements is not feasible or if application of the requirements would be preempted by federal law.

(e) An awarding authority serving a low-income population may require additional specifications that address the needs of its clients including, but not limited to, preferential hiring for residents of public housing authorities for available apprenticeship positions.

(f) Subject to appropriation, the division of apprentice training shall enhance its outreach efforts to underserved populations in order to increase and diversify the number of apprentices in the commonwealth.

CHAPTER 30 OF THE ACTS OF 2009
AN ACT MOBILIZING ECONOMIC RECOVERY IN THE COMMONWEALTH
SECTION 40

SECTION 40. Employers and hiring agents on all projects funded in whole or in part by the American Recovery and Reinvestment Act of 2009 shall post notices of available employment opportunities to the commonwealth's job bank or the one-stop career centers closest to where the projects shall be located. The postings shall contain such information as directed by the secretary of labor and workforce development. The secretary may issue regulations to effectuate this job posting requirement.

CHAPTER 30 OF THE ACTS OF 2009
AN ACT MOBILIZING ECONOMIC RECOVERY IN THE COMMONWEALTH
SECTION 39

SECTION 39. Any entity located in the commonwealth that receives federal funds through the American Recovery and Reinvestment Act of 2009 shall provide information as directed by the secretary of administration and finance regarding the use of the funds. The required information shall include, but not be limited to, the reporting information required by the federal government and any other information deemed necessary by the secretary to administer the American Recovery and Reinvestment Act of 2009 responsibly, efficiently and transparently. To the extent possible, the secretary shall work to streamline the reporting of this information, minimize duplication of data entry by recipients and ensure data consistency. The secretary may issue regulations to effectuate this reporting requirement.

PAYMENTS TO CONSULTANTS

EPA participation in the salary rate (excluding overhead) paid to individual consultants retained by recipients or by a recipient's contractors or subcontractors shall be limited to the maximum daily rate for a Level IV of the Executive Schedule (formerly GS-18), to be adjusted annually. This limit applies to consultation services of designated individuals with specialized skills who are paid at a daily or hourly rate. As of January 1, 2009, the limit is $587.20 per day and $73.40 per hour. This rate does not include transportation and subsistence costs for travel performed (the recipient will pay these in accordance with their normal travel reimbursement practices).

Subagreements with firms for services which are awarded using the procurement requirements in 40 CFR 30 or 31, as applicable, are not affected by this limitation unless the terms of the contract provide the recipient with responsibility for the selection, direction, and control of the individuals who will be providing services under the contract at an hourly or daily rate of compensation. See 40 CFR 31.36(j) or 30.27(b).

GENERAL GUIDELINES FOR EMBLEM AND LOGO APPLICATIONS
VERSION 1.0
03/20/09

This project receives funding under ARRA and the grantee, sub-grantee or loan recipient must display the ARRA Logo in a manner that informs the public that the project is an ARRA investment. The ARRA logo may be obtained from the EPA grants office listed in this award document. If the EPA logo is displayed along with the ARRA logo and logos of other participating entities, the EPA logo must not be displayed in a manner that implies that EPA itself is conducting the project. Instead, the EPA logo must be accompanied with a statement indicating that the grantee, sub-grantee or loan recipient received financial assistance from EPA for the project.

Colors:

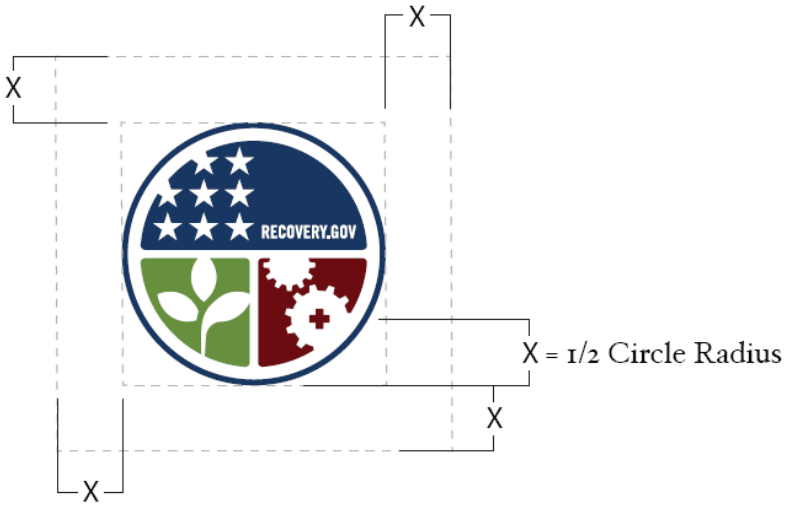
All colors in the ARRA logos have precise color references, shown in the color specifications chart below. Always use the exact color values listed. Do not use screens or tints of any of the colors for any part of the logo. The CMYK values should be used for print applications. The RGB and HEX# values should be used for on-screen applications.

COLOR	CMYK	RGB	HEX#
Navy	00 / 00 / 00 / 00	0 / 51 / 102	003366
Red	30 / 100 / 100 / 50	102 / 0 / 0	660000
Green	65 / 25 / 100 / 7	103 / 144 / 62	67903E
Light Blue	67 / 37 / 6 / 00	89 / 141 / 192	598DC0

Clear Space

The clear space is shown as the value "X" in this exhibit. The minimum clear space must always be at least "X" on all sides of the logo. Whenever possible, increase the amount of clear space.

Primary Emblem



DAVIS BACON WAGE RATES

Wage Rate Requirements under Section 1606 of the American Recovery and Reinvestment Act of 2009

Preamble

Section 1606 of the Recovery Act requires that all laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part by and through the Federal Government pursuant to the Recovery Act shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code.

Pursuant to Reorganization Plan No. 14 and the Copeland Act, 40 U.S.C. 3145, the Department of Labor has issued regulations at 29 CFR Parts 1, 3, and 5 to implement the Davis-Bacon (DB) and related Acts. Regulations in 29 CFR 5.5 instruct agencies concerning application of the standard DB contract clauses set forth in that section. Federal agencies providing grants, cooperative agreements, and loans under the Recovery Act shall ensure that the standard DB contract clauses found in 29 CFR 5.5(a) are incorporated in any resultant covered contracts that are in excess of $2,000 for construction, alteration or repair (including painting and decorating).

For additional guidance on the wage rate requirements of section 1606, contact your awarding agency. Recipients of grants, cooperative agreements and loans should direct their initial inquiries concerning the application of DB requirements to a particular federally assisted project to the Federal agency funding the project. The Secretary of Labor retains final coverage authority under Reorganization Plan Number 14.

With respect to the Clean Water and Safe Drinking Water State revolving Funds, EPA provides capitalization grants to each State which in turn provides subgrants or loans to eligible entities within the State. Typically, the subrecipients are municipal or other local governmental entities that manage the funds. For these types of recipients, the provisions set forth under Roman Numeral I, below, shall apply. Although EPA and the State remain responsible for ensuring subrecipients' compliance with the wage rate requirements set forth herein, those subrecipients shall have the primary responsibility to maintain payroll records as described in Section 3(ii)(A), below and for compliance as described in Section I-5.

I. Requirements under Section 1606 of the American Recovery and Reinvestment Act for Subrecipients That Are Governmental Entities

The following terms and conditions specify how recipients will assist EPA in meeting its DB responsibilities when DB applies to EPA awards of financial assistance under the Recovery Act with respect to State recipients and subrecipients that are governmental entities. If a subrecipient has questions regarding when DB applies, obtaining the correct DB wage determinations, DB provisions, or compliance monitoring, it may contact the State recipient. If a State recipient needs guidance, the recipient may contact EPA Region I for guidance. The recipient or subrecipient may also obtain additional guidance from DOL's web site at http://www.dol.gov/esa/whd/recovery/

1. Applicability of the Davis- Bacon (DB) prevailing wage requirements

Davis-Bacon prevailing wage requirements apply to the construction, alteration, and repair activity of infrastructure, including all construction, alteration and repair activity involving waste water or drinking water treatment plants is subject to DB. If a subrecipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the subrecipient must discuss the situation with the recipient State before authorizing work on that site.

2. Obtaining Wage Determinations.

(a) Subrecipients shall obtain the wage determination for the locality in which a covered activity subject to DB will take place prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation) for activities subject to DB. These wage determinations shall be incorporated into solicitations and any subsequent contracts. Prime contracts must contain a provision requiring that subcontractors follow the wage determination incorporated into the prime contract.

(i) While the solicitation remains open, the subrecipient shall monitor www.wdol.gov. on a weekly basis to ensure that the wage determination contained in the solicitation remains current. The subrecipients shall amend the solicitation if DOL issues a modification more than 10 days prior to the closing date (i.e. bid opening) for the solicitation. If DOL modifies or supersedes the applicable wage determination less than 10 days prior to the closing date, the subrecipients may request a finding from the State recipient that there is not a reasonable time to notify interested contractors of the modification of the wage determination. The State recipient will provide a report of its findings to the subrecipient.

(ii) If the subrecipient does not award the contract within 90 days of the closure of the solicitation, any modifications or supersedes DOL makes to the wage determination contained in the solicitation shall be effective unless the State recipient, at the request of the subrecipient, obtains an extension of the 90 day period from DOL pursuant to 29 CFR 1.6(c) (3) (iv). The subrecipient shall monitor www.wdol.gov on a weekly basis if it does not award the contract within 90 days of closure of the solicitation to ensure that wage determinations contained in the solicitation remain current.

(b) If the subrecipient carries out activity subject to DB by issuing a task order, work assignment or similar instrument to an existing contractor (ordering instrument) rather than by publishing a solicitation, the subrecipient shall insert the appropriate DOL wage determination from www.wdol.gov into the ordering instrument.

(c) Subrecipients shall review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.

(d) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a subrecipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the subrecipient has failed to incorporate a wage determination or has used a wage determination that clearly does not apply to the contract or ordering instrument. If this occurs, the subrecipient shall either terminate the contract or ordering instrument and issue a revised solicitation or ordering instrument or incorporate DOL's wage determination retroactive to the beginning of the contract or ordering instrument by change order. The subrecipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

3. Contract and Subcontract provisions.

(a) The Recipient shall insure that the **subrecipient**(s) shall insert in full in any contract in excess of $2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a public building or public work, or building or work financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution

(except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1, the following clauses:

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

Subrecipients may obtain wage determinations from the U.S. Department of Labor's web site, www.wdol.gov.

(ii) (A) The **subrecipient**(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The EPA award official shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the **subrecipient**(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the **subrecipient** (s) to the State award official. The State award official will transmit the report, to the Administrator of the Wage and Hour Division,

Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the and the **subrecipient**(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the award official shall refer the questions, including the views of all interested parties and the recommendation of the State award official, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding. The **subrecipient**(s), shall upon written request of the EPA Award Official or an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages

paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii) (A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the **subrecipient**, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the **subrecipient** shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the **subrecipient** (s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the **subrecipient** (s).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the Federal agency or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees--

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an

apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may by appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any

of its subcontractors) and Subrecipient(s), State, EPA, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

4. Contract Provision for Contracts in Excess of $100,000.

(a) Contract Work Hours and Safety Standards Act. The **subrecipient** shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFF 4.6 . As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a)(1) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The **subrecipient,** upon written request of the EPA Award Official or an authorized representative of the Department of Labor, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this section.

(b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the **Subrecipient** shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the **Subrecipient** shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of MassDEP, EPA and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

5. Compliance Verification

(a). The **subrecipient** shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(6), all interviews must be conducted in confidence. The **subrecipient** must use Standard Form 1445 or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The **subrecipient** shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, the **subrecipient** must conduct interviews with a representative group of covered employees within two weeks of each contractor or subcontractor's submission of its initial weekly payroll data and two weeks prior to the estimated completion date for the contract or subcontract. **Subrecipient**s must conduct more frequent interviews if the initial interviews or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB . **Subrecipient**s shall immediately conduct necessary interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.

(c). The **subrecipient** shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The **subrecipient** shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, the **subrecipient** must spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. **Subrecipient**s must conduct more frequent spot checks if the initial spot check or other information indicates that there is a risk that the contractor or subcontractor is not complying with DB . In addition, during the examinations the **subrecipient** shall verify evidence of fringe benefit plans and payments thereunder by contractors and subcontractors who claim credit for fringe benefit contributions.

(d). The **subrecipient** shall periodically review contractors and subcontractors use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S Department of Labor or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) **Subrecipient**s must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at http://www.dol.gov/esa/contacts/whd/america2.htm

DETERMINATION OF WAGE RATES

WEEKLY PAYROLL RECORDS REPORT
& STATEMENT OF COMPLIANCE

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

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

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

STATEMENT OF COMPLIANCE

_____, 20_____

I,_____,_____
(Name of signatory party) (Title)

do hereby state:

That I pay or supervise the payment of the persons employed by
_____ 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 _____

MASSACHUSETTS WEEKLY CERTIFIED PAYROLL REPORT FORM

Company's Name:	Address:	Phone No.:	Payroll No.:

Employer's Signature:	Title:	Contract No:	Tax Payer ID No.	Work Week Ending:

Awarding Authority's Name:	Public Works Project Name:	Public Works Project Location:	Min. Wage Rate Sheet No.

General / Prime Contractor's Name:	Subcontractor's Name:	"Employer" Hourly Fringe Benefit Contributions

Employee Name & Complete Address	Employee is OSHA 10 Certified (?)	Work Classification:	Appr. Rate (%)	Hours Worked Su.	Mo.	Tu.	We.	Th.	Fr.	Sa.	Project Hours (A) / All Other Hours	Hourly Base Wage (B)	Health & Welfare Insurance (C')	ERISA Pension Plan (D)	Supp. Unemp. (E)	Total Hourly Prev. Wage (F) (B+C+D+E)	Project Gross Wages (G) (A x F) / Total Gross Wages	Check No. (H)

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

Date recieved by awarding authority

/ /

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DIVISION OF OCCUPATIONAL SAFETY

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

Prevailing Wage Rates

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

JOANNE F. GOLDSTEIN
Secretary of Labor and Workforce Development

GEORGE E. NOEL
Director of Labor

HEATHER E. ROWE
Acting Commissioner of
Division of Occupational Safety

Awarding Authority: City of Quincy

Contract Number:

City/Town: QUINCY

Description of Work: Brewers Corner Neighborhood Improvement Project, EECBG Grant - Intersection reconstruction;Handicap accessibility;New LED traffic signals & associated equipment; Roadway resurfacing,repaving,sidewalk.

Job Location: Brewers Corner - Quincy, MA

Classification	Effective Dates and Total Rates					
Construction						
(2 AXLE) DRIVER - EQUIPMENT	06/01/2010	$44.930	12/01/2010	$45.530	06/01/2011	$46.280
	12/01/2011	$46.940	06/01/2012	$47.590	12/01/2012	$48.620
(3 AXLE) DRIVER - EQUIPMENT	06/01/2010	$45.000	12/01/2010	$45.600	06/01/2011	$46.350
	12/01/2011	$47.010	06/01/2012	$47.660	12/01/2012	$48.690
(4 & 5 AXLE) DRIVER - EQUIPMENT	06/01/2010	$45.120	12/01/2010	$45.720	06/01/2011	$46.470
	12/01/2011	$47.130	06/01/2012	$47.780	12/01/2012	$48.810
ADS/SUBMERSIBLE PILOT	08/01/2010	$104.640	08/01/2011	$108.760		
AIR TRACK OPERATOR	06/01/2010	$48.850	12/01/2010	$50.100	06/01/2011	$51.100
	12/01/2011	$52.350				
ASBESTOS REMOVER - PIPE / MECH. EQUIPT.	12/01/2009	$40.250				
ASPHALT RAKER	06/01/2010	$48.350	12/01/2010	$49.600	06/01/2011	$50.600
	12/01/2011	$51.850				
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE	06/01/2010	$59.730	12/01/2010	$60.980		
BACKHOE/FRONT-END LOADER	06/01/2010	$59.730	12/01/2010	$60.980		
BARCO-TYPE JUMPING TAMPER	06/01/2010	$48.350	12/01/2010	$49.600	06/01/2011	$50.600
	12/01/2011	$51.850				
BLOCK PAVER, RAMMER / CURB SETTER	06/01/2010	$48.850	12/01/2010	$50.100	06/01/2011	$51.100
	12/01/2011	$52.350				
BOILER MAKER	01/01/2010	$55.850				

APPRENTICE: BOILERMAKER - Local 29

Ratio	Step	1	2	3	4	5	6	7	8
1:5	%	65.00	65.00	70.00	75.00	80.00	85.00	90.00	95.00

Apprentice wages shall be no less than the following:

Step 1$42.66/2$42.66/3$44.54/4$46.43/5$48.31/6$50.20/7$52.08/8$53.97

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING)	08/01/2010	$69.910	02/01/2011	$70.900	08/01/2011	$73.000
	02/01/2012	$73.990				

APPRENTICE: BRICK/PLASTER/CEMENT MASON - Local 3 Quincy

Ratio	Step	1	2	3	4	5
1:5	%	50.00	60.00	70.00	80.00	90.00

Apprentice wages shall be no less than the following:

Step 1$47.31/2$51.83/3$56.35/4$60.87/5$65.39

BULLDOZER/GRADER/SCRAPER	06/01/2010	$59.380	12/01/2010	$60.630		
CAISSON & UNDERPINNING BOTTOM MAN	06/01/2010	$49.250	12/01/2010	$50.500	06/01/2011	$51.500
	12/01/2011	$52.750				
CAISSON & UNDERPINNING LABORER	06/01/2010	$48.100	12/01/2010	$49.350	06/01/2011	$50.350
	12/01/2011	$51.600				
CAISSON & UNDERPINNING TOP MAN	06/01/2010	$48.100	12/01/2010	$49.350	06/01/2011	$50.350
	12/01/2011	$51.600				

This wage schedule must be posted at the work site in accordance with M.G.L. c. 149, § 27. Failure of the employer to pay "prevailing wage rates," which are the minimum wage rates listed above, on public works projects is a violation of M.G.L. c. 149, § 27. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General , 100 Cambridge Street, Boston, MA 02108; Tel: 617-727-3465. Contractors with questions about the wage rates or classifications included on the wage schedules have an affirmative obligation to inquire with DOS at www.mass.gov/dos/pw or at 617-626-6952.

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DIVISION OF OCCUPATIONAL SAFETY

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

Prevailing Wage Rates

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

JOANNE F. GOLDSTEIN
Secretary of Labor and Workforce Development

GEORGE E. NOEL
Director of Labor

HEATHER E. ROWE
Acting Commissioner of
Division of Occupational Safety

Awarding Authority: City of Quincy

Contract Number:

City/Town: QUINCY

Description of Work: Brewers Corner Neighborhood Improvement Project, EECBG Grant - Intersection reconstruction;Handicap accessibility;New LED traffic signals & associated equipment; Roadway resurfacing,repaving,sidewalk.

Job Location: Brewers Corner - Quincy, MA

Classification	Effective Dates and Total Rates					
CARBIDE CORE DRILL OPERATOR	06/01/2010	$48.350	12/01/2010	$49.600	06/01/2011	$50.600
	12/01/2011	$51.850				
CARPENTER	09/01/2010	$55.360	03/01/2011	$56.230	09/01/2011	$57.360
	03/01/2012	$58.480				

APPRENTICE: CARPENTER - Zone 2 Eastern MA

Ratio	Step	1	2	3	4	5	6	7	8
1:5	%	50.00	60.00	70.00	75.00	80.00	80.00	90.00	90.00

Apprentice wages shall be no less than the following:

Step 1$25.54/2$28.71/3$41.12/4$42.71/5$45.87/6$45.87/7$50.61/8$50.61

CEMENT MASONRY/PLASTERING	08/01/2010	$68.210	02/01/2011	$68.980	08/01/2011	$70.600
	02/01/2012	$71.370				
CHAIN SAW OPERATOR	06/01/2010	$48.350	12/01/2010	$49.600	06/01/2011	$50.600
	12/01/2011	$51.850				
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES	06/01/2010	$60.730	12/01/2010	$61.980		
COMPRESSOR OPERATOR	06/01/2010	$48.760	12/01/2010	$49.690		
DELEADER (BRIDGE)	01/01/2010	$63.410				

APPRENTICE: PAINTER Local 35 - BRIDGES/TANKS

Ratio	Step	1	2	3	4	5	6	7	8
1:1	%	50.00	55.00	60.00	65.00	70.00	75.00	80.00	90.00

Apprentice wages shall be no less than the following: Steps are 750 hrs.

Step 1$29.31/2$36.86/3$39.01/4$41.16/5$50.51/6$52.66/7$54.81/8$59.11

DEMO: ADZEMAN	06/01/2010	$48.100	12/01/2010	$49.350	06/01/2011	$50.350
	12/01/2011	$51.600				
DEMO: BACKHOE/LOADER/HAMMER OPERATOR	06/01/2010	$49.100	12/01/2010	$50.350	06/01/2011	$51.350
	12/01/2011	$52.600				

APPRENTICE: LABORER Demo Backhoe/Loader/Hammer Operator

Ratio	Step	1	2	3	4
1:5	%	60.00	70.00	80.00	90.00

Apprentice wages shall be no less than the following:

Step 1$36.78/2$39.86/3$42.94/4$46.02

DEMO: BURNERS	06/01/2010	$48.850	12/01/2010	$50.100	06/01/2011	$51.100
	12/01/2011	$52.350				

APPRENTICE: LABORER Demo Burners

Ratio	Step	1	2	3	4
1:5	%	60.00	70.00	80.00	90.00

Apprentice Wages shall be no less than the following:

Step 1$36.63/2$39.69/3$42.74/4$45.80

DEMO: CONCRETE CUTTER/SAWYER	06/01/2010	$49.100	12/01/2010	$50.350	06/01/2011	$51.350
	12/01/2011	$52.600				

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Awarding Authority: City of Quincy

Contract Number:

City/Town: QUINCY

Description of Work: Brewers Corner Neighborhood Improvement Project, EECBG Grant - Intersection reconstruction;Handicap accessibility;New LED traffic signals & associated equipment; Roadway resurfacing,repaving,sidewalk.

Job Location: Brewers Corner - Quincy, MA

Classification	Effective Dates and Total Rates					
DEMO: JACKHAMMER OPERATOR	06/01/2010	$48.850	12/01/2010	$50.100	06/01/2011	$51.100
	12/01/2011	$52.350				
DEMO: WRECKING LABORER	06/01/2010	$48.100	12/01/2010	$49.350	06/01/2011	$50.350
	12/01/2011	$51.600				

APPRENTICE: LABORER Demo Wrecking Laborer

Ratio	Step	1	2	3	4
1:5	%	60.00	70.00	80.00	90.00

Apprentice wages shall be no less than the following:

Step 1$36.18/2$39.16/3$42.14/4$45.12

DIRECTIONAL DRILL MACHINE OPERATOR	06/01/2010	$59.380	12/01/2010	$60.630	
DIVER	08/01/2010	$77.440	08/01/2011	$80.190	
DIVER TENDER	08/01/2010	$62.570	08/01/2011	$65.320	
DIVER TENDER (EFFLUENT)	08/01/2010	$82.330	08/01/2011	$86.460	
DIVER/SLURRY (EFFLUENT)	08/01/2010	$104.640	08/01/2011	$108.760	
ELECTRICIAN	09/01/2010	$67.040	03/01/2011	$68.290	

APPRENTICE: ELECTRICIAN - Local 103

Ratio	Step	1	2	3	4	5	6	7	8	9	10
2:3***	%	40.00	40.00	45.00	45.00	50.00	55.00	60.00	65.00	70.00	75.00

Apprentice wages shall be no less than the following Steps: App Prior 1/1/03; 30/35/40/45/50/55/65/70/75/80

1$34.88/2$34.88/3$42.31/4$42.31/5$44.45/6$46.58/7$48.72/8$50.85/9$52.99/10$55.12

ELEVATOR CONSTRUCTOR	01/01/2010	$65.190	01/01/2011	$66.690	01/01/2012	$68.190

APPRENTICE: ELEVATOR CONSTRUCTOR - Local 4

Ratio	Step	1	2	3	4	5
1:1	%	50.00	55.00	65.00	70.00	80.00

Apprentice rates shall be no less than the following: Steps 1-2 are 6 mos.; Steps 3-5 are 1 year

Step 1$33.51/2$42.94/3$47.88/4$50.36/5$55.30

ELEVATOR CONSTRUCTOR HELPER	01/01/2010	$51.330	01/01/2011	$52.830	01/01/2012	$54.330
FENCE & GUARD RAIL ERECTOR	06/01/2010	$48.350	12/01/2010	$49.600	06/01/2011	$50.600
	12/01/2011	$51.850				
FIELD ENG. - INST. PERSON (BLDG, SITE, HVY CONST)	05/01/2010	$56.950	11/01/2010	$58.190	05/01/2011	$59.430
FIELD ENG. - ROD PERSON (BLDG, SITE, HVY CONST)	05/01/2010	$41.520	11/01/2010	$42.250	05/01/2011	$42.980
FIELD ENG.-CHIEF OF PARTY (BLDG, SITE, HVY CONST)	05/01/2010	$58.320	11/01/2010	$59.570	05/01/2011	$60.820
FIRE ALARM INSTALLER	09/01/2010	$67.040	03/01/2011	$68.290		
FIRE ALARM REPAIR / MAINTENANCE	09/01/2010	$55.050	03/01/2011	$56.300		
FIREMAN (ASST. ENGINEER)	06/01/2010	$53.760	12/01/2010	$54.840		
FLAGGER & SIGNALER	06/01/2010	$37.800	12/01/2010	$37.800	06/01/2011	$38.800
	12/01/2011	$38.800				
FLOORCOVERER	09/01/2010	$60.380	03/01/2011	$61.130	09/01/2011	$62.380
	03/01/2012	$63.630				

This wage schedule must be posted at the work site in accordance with M.G.L. c. 149, § 27. Failure of the employer to pay "prevailing wage rates," which are the minimum wage rates listed above, on public works projects is a violation of M.G.L. c. 149, § 27. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General , 100 Cambridge Street, Boston, MA 02108; Tel: 617-727-3465. Contractors with questions about the wage rates or classifications included on the wage schedules have an affirmative obligation to inquire with DOS at www.mass.gov/dos/pw or at 617-626-6952.

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HEATHER E. ROWE
Acting Commissioner of
Division of Occupational Safety

Awarding Authority: City of Quincy

Contract Number:

City/Town: QUINCY

Description of Work: Brewers Corner Neighborhood Improvement Project, EECBG Grant - Intersection reconstruction;Handicap accessibility;New LED traffic signals & associated equipment; Roadway resurfacing,repaving,sidewalk.

Job Location: Brewers Corner - Quincy, MA

Classification	Effective Dates and Total Rates					
APPRENTICE: FLOORCOVERER - Local 2168 Zone I						
Ratio / Step: 1:1 / % — 1: 50.00, 2: 55.00, 3: 60.00, 4: 65.00, 5: 70.00, 6: 75.00, 7: 80.00, 8: 85.00						
Apprentice rates shall be no less than the following: Steps are 750 hrs.						
Step 1$27.35/2$29.13/3$39.93/4$41.71/5$45.32/6$47.10/7$50.69/8$52.47						
FORK LIFT/CHERRY PICKER	06/01/2010	$59.730	12/01/2010	$60.980		
GENERATOR/LIGHTING PLANT/HEATERS	06/01/2010	$48.760	12/01/2010	$49.690		
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS)	01/01/2010	$52.910				
APPRENTICE: GLAZIER - Local 35 Zone 2						
Ratio / Step: 1:1 / % — 1: 50.00, 2: 55.00, 3: 60.00, 4: 65.00, 5: 70.00, 6: 75.00, 7: 80.00, 8: 90.00						
Apprentice wages shall be no less than the following: Steps are 750 hrs.						
Step 1$24.06/2$31.08/3$32.71/4$34.33/5$43.16/6$44.78/7$46.41/8$49.66						
HOISTING ENGINEER/CRANES/GRADALLS	06/01/2010	$59.730	12/01/2010	$60.980		
APPRENTICE: HOIST/PORT. ENG.- Local 4						
Ratio / Step: 1:6 / % — 1: 55.00, 2: 60.00, 3: 65.00, 4: 70.00, 5: 75.00, 6: 80.00, 7: 85.00, 8: 90.00						
Apprentice wages shall be no less than the following:						
Step 1$30.40/2$44.42/3$46.33/4$48.25/5$50.16/6$52.07/7$53.99/8$55.90						
HVAC (DUCTWORK)	08/01/2010	$63.960	02/01/2011	$65.210	08/01/2011	$66.460
	02/01/2012	$67.710	08/01/2012	$68.960	02/01/2013	$70.210
HVAC (ELECTRICAL CONTROLS)	09/01/2010	$67.040	03/01/2011	$68.290		
HVAC (TESTING AND BALANCING - AIR)	08/01/2010	$63.960	02/01/2011	$65.210	08/01/2011	$66.460
	02/01/2012	$67.710	08/01/2012	$68.960	02/01/2013	$70.210
HVAC (TESTING AND BALANCING -WATER)	09/01/2010	$68.730				
HVAC MECHANIC	09/01/2010	$68.730				
HYDRAULIC DRILLS	06/01/2010	$48.850	12/01/2010	$50.100	06/01/2011	$51.100
	12/01/2011	$52.350				
INSULATOR (PIPES & TANKS)	09/01/2010	$61.660				
APPRENTICE: ASBESTOS INSULATOR (Pipes & Tanks) - Local 6 Boston						
Ratio / Step: 1:4 / % — 1: 50.00, 2: 60.00, 3: 70.00, 4: 80.00						
Apprentice wages shall be no less than the following: Steps are 1 year						
Step 1$36.14/2$40.76/3$45.39/4$50.01						
IRONWORKER/WELDER	03/16/2010	$60.940				

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DIVISION OF OCCUPATIONAL SAFETY

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

Prevailing Wage Rates

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

JOANNE F. GOLDSTEIN
Secretary of Labor and Workforce Development

GEORGE E. NOEL
Director of Labor

HEATHER E. ROWE
Acting Commissioner of
Division of Occupational Safety

Awarding Authority: City of Quincy

Contract Number:

City/Town: QUINCY

Description of Work: Brewers Corner Neighborhood Improvement Project, EECBG Grant - Intersection reconstruction;Handicap accessibility;New LED traffic signals & associated equipment; Roadway resurfacing,repaving,sidewalk.

Job Location: Brewers Corner - Quincy, MA

Classification	Effective Dates and Total Rates					

APPRENTICE: IRONWORKER - Local 7 Boston

Ratio	Step	1	2	3	4	5	6
**	%	60.00	70.00	75.00	80.00	85.00	90.00

Apprentice wages shall be no less than the following: ** Structural 1:6; Ornamental 1:4

Step 1$46.82/2$50.35/3$52.12/4$53.88/5$55.65/6$57.41

JACKHAMMER & PAVING BREAKER OPERATOR	06/01/2010	$48.350	12/01/2010	$49.600	06/01/2011	$50.600
	12/01/2011	$51.850				
LABORER	06/01/2010	$48.100	12/01/2010	$49.350	06/01/2011	$50.350
	12/01/2011	$51.600				

APPRENTICE: LABORER - Zone 1

Ratio	Step	1	2	3	4
1:5	%	60.00	70.00	80.00	90.00

Apprentice wages shall be no less than the following:

Step 1$36.18/2$39.16/3$42.14/4$45.12

LABORER: CARPENTER TENDER	06/01/2010	$48.100	12/01/2010	$49.350	06/01/2011	$50.350
	12/01/2011	$51.600				
LABORER: CEMENT FINISHER TENDER	06/01/2010	$48.100	12/01/2010	$49.350	06/01/2011	$50.350
	12/01/2011	$51.600				
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER	06/01/2010	$48.100	12/01/2010	$49.350	06/01/2011	$50.350
	12/01/2011	$51.600				
LABORER: MASON TENDER	06/01/2010	$48.350	12/01/2010	$49.600	06/01/2011	$50.600
	12/01/2011	$51.850				
LABORER: MULTI-TRADE TENDER	06/01/2010	$48.100	12/01/2010	$49.350	06/01/2011	$50.350
	12/01/2011	$51.600				
LABORER: TREE REMOVER	06/01/2010	$48.100	12/01/2010	$49.350	06/01/2011	$50.350
	12/01/2011	$51.600				

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.

LASER BEAM OPERATOR	06/01/2010	$48.350	12/01/2010	$49.600	06/01/2011	$50.600
	12/01/2011	$51.850				
MARBLE & TILE FINISHERS	08/01/2010	$58.470	02/01/2011	$59.270	08/01/2011	$60.950
	02/01/2012	$61.740				

APPRENTICE: MARBLE & TILE FINISHER - Local 3 Marble & Tile

Ratio	Step	1	2	3	4	5
1:3	%	50.00	60.00	70.00	80.00	90.00

Apprentice wages shall be no less than the following: Steps are 800 hrs.

Step 1$41.18/2$44.63/3$48.09/4$51.55/5$55.01

MARBLE MASONS,TILELAYERS & TERRAZZO MECH	08/01/2010	$69.950	02/01/2011	$70.940	08/01/2011	$73.040
	02/01/2012	$74.030				

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DIVISION OF OCCUPATIONAL SAFETY

DEVAL L. PATRICK
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Prevailing Wage Rates

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

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GEORGE E. NOEL
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HEATHER E. ROWE
Acting Commissioner of
Division of Occupational Safety

Awarding Authority: City of Quincy

Contract Number:

City/Town: QUINCY

Description of Work: Brewers Corner Neighborhood Improvement Project, EECBG Grant - Intersection reconstruction;Handicap accessibility;New LED traffic signals & associated equipment; Roadway resurfacing,repaving,sidewalk.

Job Location: Brewers Corner - Quincy, MA

Classification	Effective Dates and Total Rates					
APPRENTICE: MARBLE-TILE-TERRAZZO MECHANIC - Local 3 Marble & Tile						
Ratio / Step	1	2	3	4	5	
1:3 / %	50.00	60.00	70.00	80.00	90.00	
Apprentice wages shall be no less than the following:						
Step 1$47.33/2$51.85/3$56.38/4$60.90/5$65.43						
MECH. SWEEPER OPERATOR (NON-CONSTRUCTION)	07/01/2010	$29.590	07/01/2011	$30.290		
MECH. SWEEPER OPERATOR (ON CONST. SITES)	06/01/2010	$59.380	12/01/2010	$60.630		
MECHANICS MAINTENANCE	06/01/2010	$59.380	12/01/2010	$60.630		
MILLWRIGHT (Zone 1)	04/01/2010	$55.850				
APPRENTICE: MILLWRIGHT - Local 1121 Zone 1						
Ratio / Step	1	2	3	4	5	6	7	8
1:5 / %	50.00	55.00	60.00	65.00	70.00	75.00	80.00	85.00
Apprentice wages shall be no less than the following:								
Step 1$25.95/2$27.63/3$37.99/4$39.67/5$42.83/6$44.51/7$47.67/8$49.34								
MORTAR MIXER	06/01/2010	$48.350	12/01/2010	$49.600	06/01/2011	$50.600		
	12/01/2011	$51.850						
OILER (OTHER THAN TRUCK CRANES,GRADALLS)	06/01/2010	$42.430	12/01/2010	$43.170				
OILER (TRUCK CRANES, GRADALLS)	06/01/2010	$45.500	12/01/2010	$46.330				
OTHER POWER DRIVEN EQUIPMENT - CLASS II	06/01/2010	$59.380	12/01/2010	$60.630				
PAINTER (BRIDGES/TANKS)	01/01/2010	$63.410						
APPRENTICE: PAINTER Local 35 - BRIDGES/TANKS								
Ratio / Step	1	2	3	4	5	6	7	8
1:1 / %	50.00	55.00	60.00	65.00	70.00	75.00	80.00	90.00
Apprentice wages shall be no less than the following:					Steps are 750 hrs.			
Step 1$29.31/2$36.86/3$39.01/4$41.16/5$50.51/6$52.66/7$54.81/8$59.11								
PAINTER (SPRAY OR SANDBLAST, NEW) *	01/01/2010	$54.310						
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used.								
APPRENTICE: PAINTER Local 35 Zone 2 - Spray/Sandblast - New								
Ratio / Step	1	2	3	4	5	6	7	8
1:1 / %	50.00	55.00	60.00	65.00	70.00	75.00	80.00	90.00
Apprentice wages shall be no less than the following:								
Step 1$24.76/2$31.85/3$33.55/4$35.24/5$44.14/6$45.83/7$47.53/8$50.92								
PAINTER (SPRAY OR SANDBLAST, REPAINT)	01/01/2010	$52.370						
APPRENTICE: PAINTER Local 35 Zone 2 - Spray/Sandblast - Repaint								
Ratio / Step	1	2	3	4	5	6	7	8
1:1 / %	50.00	55.00	60.00	65.00	70.00	75.00	80.00	90.00
Apprentice wages shall be no less than the following:								
Step 1$23.79/2$30.78/3$32.38/4$33.98/5$42.78/6$44.38/7$45.98/8$49.17								

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Prevailing Wage Rates

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

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Description of Work: Brewers Corner Neighborhood Improvement Project, EECBG Grant - Intersection reconstruction;Handicap accessibility;New LED traffic signals & associated equipment; Roadway resurfacing,repaving,sidewalk.

Job Location: Brewers Corner - Quincy, MA

Classification	Effective Dates and Total Rates					
PAINTER (TRAFFIC MARKINGS)	06/01/2010	$48.100	12/01/2010	$49.350	06/01/2011	$50.350
	12/01/2011	$51.600				
PAINTER / TAPER (BRUSH, NEW) *	01/01/2010	$52.910				

* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used.

APPRENTICE: PAINTER - Local 35 Zone 2 - BRUSH NEW

Ratio	Step	1	2	3	4	5	6	7	8
1:1	%	50.00	55.00	60.00	65.00	70.00	75.00	80.00	90.00

Apprentice wages shall be no less than the following: Steps are 750 hrs.

Step 1$24.06/2$31.08/3$32.71/4$34.33/5$43.16/6$44.78/7$46.41/8$49.66

PAINTER / TAPER (BRUSH, REPAINT) 01/01/2010 $50.970

APPRENTICE: PAINTER Local 35 Zone 2 - BRUSH REPAINT

Ratio	Step	1	2	3	4	5	6	7	8
1:1	%	50.00	55.00	60.00	65.00	70.00	75.00	80.00	90.00

Apprentice wages shall be no less than the following: Steps are 750 hrs.

Step 1$23.09/2$30.01/3$31.54/4$33.07/5$41.80/6$43.33/7$44.86/8$47.91

PANEL & PICKUP TRUCKS DRIVER	06/01/2010	$44.760	12/01/2010	$45.360	06/01/2011	$46.110
	12/01/2011	$46.770	06/01/2012	$47.420	12/01/2012	$48.450
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK)	08/01/2010	$62.570	08/01/2011	$65.320		
PILE DRIVER	08/01/2010	$62.570	08/01/2011	$65.320		

APPRENTICE: PILE DRIVER - Local 56 Zone 1

Ratio	Step	1	2	3	4	5	6	7	8
1:3	%	60.00	65.00	70.00	75.00	80.00	85.00	90.00	95.00

Apprentice wages shall be no less than the following:

Step 1$46.76/2$48.74/3$50.71/4$52.69/5$54.67/6$56.64/7$58.62/8$60.59

PIPEFITTER & STEAMFITTER 09/01/2010 $68.730

APPRENTICE: PIPEFITTER - Local 537

Ratio	Step	1	2	3	4	5
**	%	40.00	45.00	60.00	70.00	80.00

Apprentice Rates-Step1$33.44/2$43.38/3$50.29/4$54.90/5$59.51 ** 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)

PIPELAYER	06/01/2010	$48.350	12/01/2010	$49.600	06/01/2011	$50.600
	12/01/2011	$51.850				
PLUMBERS & GASFITTERS	03/01/2010	$67.500				

APPRENTICE: PLUMBER - Local 12

Ratio	Step	1	2	3	4	5
**	%	35.00	40.00	55.00	65.00	75.00

Apprentice wages shall be no less than the following: ** 1:2; 2:6; 3:10; 4:14; 5:19/Steps are 1 yr

Step 1$30.01/2$32.89/3$41.54/4$47.31/ 4w/lic$50.20 /5$53.09/ 5w/lic$55.98

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DEVAL L. PATRICK
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Prevailing Wage Rates

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

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HEATHER E. ROWE
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Awarding Authority: City of Quincy

Contract Number:

City/Town: QUINCY

Description of Work: Brewers Corner Neighborhood Improvement Project, EECBG Grant - Intersection reconstruction;Handicap accessibility;New LED traffic signals & associated equipment; Roadway resurfacing,repaving,sidewalk.

Job Location: Brewers Corner - Quincy, MA

Classification	Effective Dates and Total Rates					
PNEUMATIC CONTROLS (TEMP.)	09/01/2010	$68.730				
PNEUMATIC DRILL/TOOL OPERATOR	06/01/2010	$48.350	12/01/2010	$49.600	06/01/2011	$50.600
	12/01/2011	$51.850				
POWDERMAN & BLASTER	06/01/2010	$49.100	12/01/2010	$50.350	06/01/2011	$51.350
	12/01/2011	$52.600				
POWER SHOVEL/DERRICK/TRENCHING MACHINE	06/01/2010	$59.730	12/01/2010	$60.980		
PUMP OPERATOR (CONCRETE)	06/01/2010	$59.730	12/01/2010	$60.980		
PUMP OPERATOR (DEWATERING, OTHER)	06/01/2010	$48.760	12/01/2010	$49.690		
READY-MIX CONCRETE DRIVER	05/01/2010	$41.080	05/01/2011	$41.690		
RECLAIMERS	06/01/2010	$59.380	12/01/2010	$60.630		
RESIDENTIAL WOOD FRAME CARPENTER **	04/01/2009	$35.620				

** 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.

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

Ratio	Step	1	2	3	4	5	6	7	8
1:5	%	60.00	60.00	65.00	70.00	75.00	80.00	85.00	90.00

Apprentice wages shall be no less than the following:

Step 1$20.13/2$26.04/3$27.23/4$28.43/5$29.63/6$30.83/7$32.03/8$33.22

RIDE-ON MOTORIZED BUGGY OPERATOR	06/01/2010	$48.350	12/01/2010	$49.600	06/01/2011	$50.600
	12/01/2011	$51.850				
ROLLER/SPREADER/MULCHING MACHINE	06/01/2010	$59.380	12/01/2010	$60.630		
ROOFER (Inc.Roofer Waterproofng &Roofer Damproofg)	02/01/2009	$53.860				

APPRENTICE: ROOFER - Local 33

Ratio	Step	1	2	3	4	5
**	%	50.00	60.00	65.00	75.00	85.00

** 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 rates no less than: Step 1$29.91/2$40.04/3$41.76/4$45.22/5$48.68

ROOFER SLATE / TILE / PRECAST CONCRETE	02/01/2009	$54.110				

APPRENTICE: ROOFER (Slate/Tile/Precast Concrete) - Local 33

Ratio	Step	1	2	3	4	5
**	%	50.00	60.00	65.00	75.00	85.00

Apprentices wages shall be paid no less than the following:

Step 1$30.04/2$40.19/3$41.93/4$45.41/5$48.89

SHEETMETAL WORKER	08/01/2010	$63.960	02/01/2011	$65.210	08/01/2011	$66.460
	02/01/2012	$67.710	08/01/2012	$68.960	02/01/2013	$70.210

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Contract Number:

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Description of Work: Brewers Corner Neighborhood Improvement Project, EECBG Grant - Intersection reconstruction;Handicap accessibility;New LED traffic signals & associated equipment; Roadway resurfacing,repaving,sidewalk.

Job Location: Brewers Corner - Quincy, MA

Classification	Effective Dates and Total Rates					
APPRENTICE: SHEET METAL WORKER - Local 17-A						
Ratio / Step: 1:4 / % — 1: 40.00; 2: 45.00; 3: 50.00; 4: 60.00; 5: 65.00; 6: 75.00; 7: 85.00						
Apprentice wages shall be no less than the following: Steps 1-3 are 1 year; Steps 4-7 are 6 mos.						
Step 1$24.84/2$33.33/3$35.95/4$41.20/5$43.83/6$49.08/7$53.83						
SIGN ERECTOR	06/01/2009	$37.780				
APPRENTICE: SIGN ERECTOR - Local 35 Zone 2						
Ratio / Step: 1:1 / % — 1: 50.00; 2: 55.00; 3: 60.00; 4: 65.00; 5: 70.00; 6: 75.00; 7: 80.00; 8: 85.00; 9: 90.00						
Apprentice wages shall be no less than the following: Steps are 4 mos.						
Step 1$19.48/2$23.12/3$24.36/4$25.60/5$30.34/6$31.58/7$32.82/8$34.06/9$35.30						
SPECIALIZED EARTH MOVING EQUIP < 35 TONS	06/01/2010	$45.220	12/01/2010	$45.820	06/01/2011	$46.570
	12/01/2011	$47.230	06/01/2012	$47.880	12/01/2012	$48.910
SPECIALIZED EARTH MOVING EQUIP > 35 TONS	06/01/2010	$45.510	12/01/2010	$46.110	06/01/2011	$46.860
	12/01/2011	$47.520	06/01/2012	$48.170	12/01/2012	$49.200
SPRINKLER FITTER	04/01/2010	$69.550				
APPRENTICE: SPRINKLER FITTER - Local 550						
Ratio / Step: 1:1 / % — 1: 40.00; 2: 45.00; 3: 50.00; 4: 55.00; 5: 60.00; 6: 65.00; 7: 70.00; 8: 75.00; 9: 80.00; 10: 85.00						
Apprentice wages shall be no less than the following steps:						
1$35.50/2$38.03/3$40.55/4$43.08/5$45.60/6$48.13/7$50.65/8$53.18/9$55.70/10$58.23						
STEAM BOILER OPERATOR	06/01/2010	$59.380	12/01/2010	$60.630		
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN	06/01/2010	$59.380	12/01/2010	$60.630		
TELECOMMUNICATION TECHNICIAN	09/01/2010	$55.050	03/01/2011	$56.300		
APPRENTICE: TELECOMMUNICATION TECHNICIAN - Local 103						
Ratio / Step: 1:1 / % — 1: 40.00; 2: 45.00; 3: 50.00; 4: 55.00; 5: 60.00; 6: 65.00; 7: 75.00; 8: 80.00						
Apprentice wages shall be no less than the following:						
Step 1$34.59/2$36.19/3$37.80/4$39.39/5$40.99/6$42.60/7$45.80/8$47.40						
TERRAZZO FINISHERS	08/01/2010	$68.850	02/01/2011	$69.840	08/01/2011	$71.940
	02/01/2012	$72.930				
APPRENTICE: TERRAZZO FINISHER - Local 3 Marble & Tile						
Ratio / Step: 1:3 / % — 1: 50.00; 2: 60.00; 3: 70.00; 4: 80.00; 5: 90.00						
Apprentice wages shall be no less than the following: Steps are 800 hrs.						
Step 1$46.78/2$51.19/3$55.61/4$60.02/5$64.44						
TEST BORING DRILLER	06/01/2010	$49.500	12/01/2010	$50.750	06/01/2011	$51.750
	12/01/2011	$53.000				

This wage schedule must be posted at the work site in accordance with M.G.L. c. 149, § 27. Failure of the employer to pay "prevailing wage rates," which are the minimum wage rates listed above, on public works projects is a violation of M.G.L. c. 149, § 27. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General , 100 Cambridge Street, Boston, MA 02108; Tel: 617-727-3465. Contractors with questions about the wage rates or classifications included on the wage schedules have an affirmative obligation to inquire with DOS at www.mass.gov/dos/pw or at 617-626-6952.

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DIVISION OF OCCUPATIONAL SAFETY

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

Prevailing Wage Rates

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

JOANNE F. GOLDSTEIN
Secretary of Labor and Workforce Development

GEORGE E. NOEL
Director of Labor

HEATHER E. ROWE
Acting Commissioner of
Division of Occupational Safety

Awarding Authority: City of Quincy

Contract Number:

City/Town: QUINCY

Description of Work: Brewers Corner Neighborhood Improvement Project, EECBG Grant - Intersection reconstruction;Handicap accessibility;New LED traffic signals & associated equipment; Roadway resurfacing,repaving,sidewalk.

Job Location: Brewers Corner - Quincy, MA

Classification	Effective Dates and Total Rates					
TEST BORING DRILLER HELPER	06/01/2010	$48.220	12/01/2010	$49.470	06/01/2011	$50.470
	12/01/2011	$51.720				
TEST BORING LABORER	06/01/2010	$48.100	12/01/2010	$49.350	06/01/2011	$50.350
	12/01/2011	$51.600				
TRACTORS/PORTABLE STEAM GENERATORS	06/01/2010	$59.380	12/01/2010	$60.630		
TRAILERS FOR EARTH MOVING EQUIPMENT	06/01/2010	$45.800	12/01/2010	$46.400	06/01/2011	$47.150
	12/01/2011	$47.810	06/01/2012	$48.460	12/01/2012	$49.490
TUNNEL WORK - COMPRESSED AIR	06/01/2010	$60.680	12/01/2010	$61.930	06/01/2011	$63.180
	12/01/2011	$64.430				
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE)	06/01/2010	$62.680	12/01/2010	$63.930	06/01/2011	$65.180
	12/01/2011	$66.430				
TUNNEL WORK - FREE AIR	06/01/2010	$52.750	12/01/2010	$54.000	06/01/2011	$55.250
	12/01/2011	$56.500				
TUNNEL WORK - FREE AIR (HAZ. WASTE)	06/01/2010	$54.750	12/01/2010	$56.000	06/01/2011	$57.250
	12/01/2011	$58.500				
VAC-HAUL	06/01/2010	$45.220	12/01/2010	$45.820	06/01/2011	$46.570
	12/01/2011	$47.230	06/01/2012	$47.880	12/01/2012	$48.910
WAGON DRILL OPERATOR	06/01/2010	$48.350	12/01/2010	$49.600	06/01/2011	$50.600
	12/01/2011	$51.850				
WASTE WATER PUMP OPERATOR	06/01/2010	$59.730	12/01/2010	$60.980		
WATER METER INSTALLER	03/01/2010	$67.500				

Outside Electrical - East

CABLE TECHNICIAN (Power Zone)	08/30/2010	$34.050	08/29/2011	$35.310
CABLEMAN (Underground Ducts & Cables)	08/30/2010	$44.320	08/29/2011	$46.110
DRIVER / GROUNDMAN CDL	08/30/2010	$39.360	08/29/2011	$40.830
DRIVER / GROUNDMAN -Inexperienced (<2000 Hrs)	08/30/2010	$31.890	08/29/2011	$33.050
EQUIPMENT OPERATOR (Class A CDL)	08/30/2010	$48.320	08/29/2011	$50.110
EQUIPMENT OPERATOR (Class B CDL)	08/30/2010	$41.760	08/29/2011	$43.340
GROUNDMAN	08/30/2010	$31.390	08/29/2011	$32.550
GROUNDMAN -Inexperienced (<2000 Hrs.)	08/30/2010	$26.840	08/29/2011	$27.790
JOURNEYMAN LINEMAN	08/30/2010	$57.510	08/29/2011	$59.620

APPRENTICE: LINEMAN (Outside Electrical) - East Local 104

Ratio	Step	1	2	3	4	5	6	7
1:2	%	60.00	65.00	70.00	75.00	80.00	85.00	90.00

Apprentice wages shall be no less than the following:

Step 1$33.31/2$35.61/3$38.17/4$40.72/5$43.27/6$45.82/7$48.88

TELEDATA CABLE SPLICER	03/01/2007	$27.330
TELEDATA LINEMAN/EQUIPMENT OPERATOR	03/01/2007	$27.330
TELEDATA WIREMAN/INSTALLER/TECHNICIAN	03/01/2007	$27.330

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THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF LABOR AND WORKFORCE DEVELOPMENT
DIVISION OF OCCUPATIONAL SAFETY

Prevailing Wage Rates

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

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HEATHER E. ROWE
Acting Commissioner of
Division of Occupational Safety

Awarding Authority: City of Quincy

Contract Number:

City/Town: QUINCY

Description of Work: Brewers Corner Neighborhood Improvement Project, EECBG Grant - Intersection reconstruction;Handicap accessibility;New LED traffic signals & associated equipment; Roadway resurfacing,repaving,sidewalk.

Job Location: Brewers Corner - Quincy, MA

Classification	Effective Dates and Total Rates	
TREE TRIMMER	02/01/2009	$19.010
This classification applies only to the trimming of branches on and around utility lines.		
TREE TRIMMER GROUNDMAN	02/01/2009	$17.060
This classification applies only to the trimming of branches on and around utility lines.		

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, Section 11.

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.
*** The job site ratio of 2 apprentices (APP) for every 3 journeymen (JM) is allowed as follows:
1 JM: 1 APP; 2-3 JM: 2 APP; 4-6 JM: 4 APP; 7-9 JM: 6 APP; 10-12 JM: 8 APP; 13-15 JM: 10 APP; etc.
**** The job site ratio of 2 apprentices (APP) for every 3 journeymen (JM) is allowed as follows:
1-2 JM: 1 APP; 3-4 JM: 2 APP; 5 JM: 3 APP; 6-7 JM: 4 APP; 8 JM: 5 APP; etc.

This wage schedule must be posted at the work site in accordance with M.G.L. c. 149, § 27. Failure of the employer to pay "prevailing wage rates," which are the minimum wage rates listed above, on public works projects is a violation of M.G.L. c. 149, § 27. Employees not receiving such rates should report the violation to the Fair Labor Division of the Office of the Attorney General , 100 Cambridge Street, Boston, MA 02108; Tel: 617-727-3465. Contractors with questions about the wage rates or classifications included on the wage schedules have an affirmative obligation to inquire with DOS at www.mass.gov/dos/pw or at 617-626-6952.

Notice to Drivers of BITUMINOUS CONCRETE

NOTICE: TO AWARDING AUTHORITIES AND CONTRACTORS

ISSUED: SEPTEMBER 1, 2006

DRIVERS WHO HAUL BITUMINOUS CONCRETE (ASPHALT)

The Massachusetts Supreme Judicial Court recently affirmed that drivers who haul bituminous concrete to public construction projects are not covered by the Prevailing Wage Law while off-site, including time spent over-the-road and picking-up materials. These drivers are covered by the Prevailing Wage Law only while on-site at the public construction project. In Teamsters Joint Council No. 10 v. Department of Labor, et al., 447 Mass. 100 (2006), the SJC upheld a 2001 administrative decision limiting the applicability of prevailing wage rates to the time bituminous drivers spend at the public construction site. This most recent decision of the SJC followed a 1989 ruling that had upheld an earlier Department of Labor (and Industries') policy that had deemed this category of drivers to be "teamsters" under the Law and, therefore, entitled to prevailing wage rates. See Construction Industries of Massachusetts v. Commissioner of Labor and Industries, 406 Mass. 162 (1989). However, the earlier court case had left open the question of whether this entitled these bituminous drivers to prevailing wage rates for their over-the-road time as well as their on-site time. This most recent decision has now answered that question.

All of the requirements of the Prevailing Wage Law, including certified weekly payroll requirements, apply to bituminous drivers for all time spent at the public construction site.

DRIVERS WHO HAUL READY-MIX CONCRETE (CEMENT)

Drivers who haul ready-mix concrete to public construction projects are not covered by the Prevailing Wage Law while off-site, including time spent over-the-road and picking-up materials. These drivers are covered by the Prevailing Wage Law while on-site at the public construction project. This applicability determination was established by a 2001 administrative decision of the Department of Labor's Division of Occupational Safety.

All of the requirements of the Prevailing Wage Law, including certified weekly payroll requirements, apply to ready-mix drivers for all time spent at the public construction site.

Please feel free to contact the Division of Occupational Safety at 617-626-6953 if you have any questions. Questions about enforcement of the Prevailing Wage Law may be directed to the Attorney General's Fair Labor and Business Practices Division at 617-727-3465

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LIST OF DRAWINGS

SU-100	Existing Conditions Plan
SU-101	Existing Conditions Plan
SU-102	Existing Conditions Plan
C-100	Legend & General Notes, Sheet Index & Abbreviations
C-200	Layout & Materials Plan 1 – Intersection & Copeland Street
C-201	Layout & Materials Plan 2 – Water Street & Granite Street
C-202	Layout & Materials Plan 3 – Garfield Street
C-300	Site Details 1
C-301	Site Details 2
C-400	Amenities Plan & Details
T-100	Traffic Control Legend, Note & Details
T-101	Loop Detector Details
T-102	Mast Arm Foundation Details
T-200	Site Signage & Striping Plan
T-300	Traffic Signal Plan
T-400	Traffic Management Plan
T-401	Traffic Management Plan

SECTION 01010 - SUMMARY OF WORK

1.01 LOCATION OF WORK

A. All work under this contract is located in the City of Quincy, Massachusetts. The Project consists of intersection reconstruction; handicap accessibility improvements; new fully-actuated LED traffic signal(s) and associated equipment; roadway resurfacing and repaving; sidewalk and curb reconstruction; street lighting; and traffic calming.

1.02 SCHEDULE AND OTHER SITE SPECIFIC REQUIREMENTS

A. The project construction milestone dates, maintenance of safe streets and sidewalks for vehicular/pedestrian traffic through the project area, safe and unobstructed access to businesses and abutters, public safety measures and site clean-up on a daily basis shall be strictly enforced. No waiver of any one of these requirements shall be allowed. The Contractors are urged to study these requirements before submitting bids. Unfamiliarity with the above requirements shall not be accepted as an excuse for lack of performance and/or basis for claims.

B. No site work shall be allowed between Thanksgiving Day and March 31 without written permission from the City. During all periods of no construction activity and prior to the project completion, the Contractor shall be fully responsible for maintaining roads/sidewalks, utilities and other public amenities for convenience, safety and safe access to businesses and abutters at all times.

1.03 WORK TO BE DONE

A. The work shall be done in accordance with the Massachusetts Highway Department Standard Specifications for Highways and Bridges, Construction Standards, other approved standards of the Department, the Manual on Uniform Traffic Control Devices, Standard Drawings for Signs and Supports, all as last amended, other standards as referenced in these specifications.

B. The work to be done under this Contract consists of furnishing all necessary labor, materials and equipment required for the installation of an traffic control signal at the intersection Granite Street, Copeland Street, Water Street and Garfield Street (commonly referred to as Brewer's Corner) in Quincy, MA. The project will include other improvements in accordance with the Plans and these Special Provisions.

Included in the work are unclassified excavation, drainage modifications/adjustments, installation of sidewalks and handicap ramps, installation of vertical granite curb, traffic signs and pavement markings, installation of a new closed-loop traffic signal system, traffic control management during construction, and other street improvements in accordance with the Plans and these Technical Specifications.

The project also includes significant amount of Contractor project management responsibilities including record keeping, grant administration, progress tracking, and communication with the City. Bidders should make specific review of these DOE and HUD provisions.

All work done under this Contract shall be in conformance with the Massachusetts Department of Transportation - Highway Division's (Formally Massachusetts Highway Department) STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES dated 1988, the SUPPLEMENTAL SPECIFICATIONS dated February 25, 2010, the STANDARD SPECIAL PROVISIONS dated August 27, 2010, the 2003 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, the 2010 CONSTRUCTION STANDARD DETAILS, the 1990 STANDARD DRAWING FOR SIGNS AND SUPPORTS, the 1968 STANDARD DRAWINGS FOR TRAFFIC SIGNALS AND HIGHWAY LIGHTING, THE AMERICAN STANDARD NURSERY STOCK (ANSI Z60.1-1986) the PLANS and these TECHNICAL

SPECIFICATIONS.

In addition, work shall conform to the City of Quincy Standards. In case of discrepancy between Massachusetts Department of Transportation - Highway Division (MassDOT) Standard Specifications and the City of Quincy Standards, the latter will govern. In instances where the Standard Specifications make references to the Massachusetts Highway Department (MassDOT or MassDOT), those references shall be replaced with "City of Quincy".

1.04 COORDINATION

The Contractor shall coordinate all work with Quincy Planning and Community Development Department, Quincy DPW, Quincy Police Department for traffic control and the local school crossing guard at Brewers Corner.

1.05 ABBREVIATIONS AND REFERENCES

A. The following abbreviations and references may be used in these specifications.

1. Standard Specifications:	Commonwealth of Massachusetts, Department of Public Works, Standard Specifications for Highways and Bridges.
2. Construction Standards:	Commonwealth of Massachusetts Department of Public Works Construction Standards.
3. Signs & Supports:	Commonwealth of Massachusetts Department of Public Works Standard Drawings for Signs and Supports.
4. MUTCD:	Commonwealth of Massachusetts Manual on Uniform Traffic Control Devices.
5. AASHTO:	The American Association of State Highway Transportation Officials.
6. ACI:	American Concrete Institute.
7. ANSI:	American National Standard Institute.
8. ASCE:	American Society of Civil Engineers.
9. ASTM:	American Society of Testing Methods.
10. AWS:	American Welding Society.
11. Fed. Specs:	Federal Specifications.

B. Where reference is made to a specification by one of the above-referenced or other associations, it is understood that the latest revisions thereof shall apply.

C. In case of conflict, these specifications shall take precedence over the Standards and Specifications noted above.

*** END OF SECTION ***

SECTION 01025 - MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 DESCRIPTION:

A. Scope: This section outlines the general approach for the measurement and payment for the Work to be completed. The specific method of measurement and payment of each item is described in its respective Division II Section of these Specifications or in the Massachusetts Highway Department Standard Specifications for Highways and Bridges, Construction Standards. The Division II Section of these Specifications are a supplement to the Massachusetts Highway Department Standard Specifications for Highways and Bridges, Construction Standards, therefore only if the Division II Measurement and Payment terms explicitly differ from the Massachusetts Highway Department Standard Specifications, will the specification herein govern. Any differences in the specifications herein are due to accepted City of Quincy standards.

B. Payment Procedures are described in the Contract, General Conditions and related Documents. Work specified but not specifically designated as an item is considered incidental to all items.

PART 2 - PRODUCTS (not applicable)

PART 3 – EXECUTION (not applicable)

*** END OF SECTION ***

SECTION 01045 - SAFETY CONTROLS & SIGNS FOR CONSTRUCTION OPERATIONS

PART 1 – GENERAL

1.01 DESCRIPTION

A. The work under this Item shall conform to the relevant provisions of Section 850 of the Standard Specifications, the Manual on Uniform Traffic Control Devices (Part IV, as amended), requirements of this section, and work as shown or as directed.

B. The work shall include furnishing, installing and maintaining various traffic control devices for the protection of area residents, the traveling public and workers during construction operations.

C. All signs, barricades, cones and drums shall have Encapsulated Lens Reflective Sheeting in accordance with Section M9.30.2 of the Standard Specifications.

1.02 FLAGS FOR ADVANCE WARNING SIGNS

A. Standard orange and red-orange flags (16-inch minimum) shall be mounted on all signs in advance of starting the work.

B. Flags shall be mounted as shown on page 6B-13 of the Mass. Manual on Uniform Traffic Control Devices (MUTCD) and shall not interfere with a clear view of the sign face.

C. Reflectorized plastic drums and the reflectorized plastic drums with flashers (Type A) shall be placed as directed by the Engineer.

D. Plastic drums shall not be less than 19-inches in any diameter transverse to the direction of traffic flow, nor less than 14-inches in any diameter.

E. Flexible reflective sheeting shall be applied to all plastic drums in accordance with the Drawings in the Standard Specifications.

1.03 PROVISIONS FOR TRAVEL AND PROSECUTION OF THE WORK

A. The Contractor shall submit a Schedule of Operations as provided for in the Standard Specifications, for the Engineer's approval before any work is started. The schedule of operations shall include a plan of construction procedures and the safety measures to be used during the execution of the work.

B. A work schedule incorporating all traffic control appurtenances and defining utilization of access points shall be submitted to the Engineer for approval. All temporary work shall be in conformance with Section 850 of the Standard Specifications, as last amended and supplemented by the following:

1. The Contractor shall provide such temporary bridging, steel plates, temporary pavement, wood-framed walkways, caution safety and other necessary signs directing the pedestrian/vehicular traffic towards unblocked and safe areas.

   In areas where the construction activity is in progress, the Contractor is required to install directional signs in front of businesses saying "OPEN FOR BUSINESS" or something similar for guidance of the shoppers. The Contractor shall provide safe access/egress, as defined above, to all businesses and abutters within the project area.

2. The Contractor shall schedule its operations so as to cause the least interruption at all times in the

flow of traffic on existing roads during construction and shall provide for the safe and convenient passage of pedestrians and vehicles throughout the project area and the adjacent areas impacted by the construction operations.

3. During construction hours, traffic flow must be controlled by Uniformed Traffic Police Officers, in accordance with Section 7.0 of the Standard Specifications. Between the hours of 9:00 AM and 3:30 PM, a minimum of one moving lane shall be maintained on the roadways in each direction. During peak traffic hours, the Contractor may be required to open more than one moving lane in one or both directions, as directed by the Engineer.

4. For construction after normal work hours, on weekends, and holidays, at least one traffic lane with pull out areas must be made available to pedestrian and vehicular traffic. Gravel borrow and bituminous concrete needed to maintain temporary passable travel lane ramps to allow access and egress to abutting properties shall be provided as needed, by the Contractor.

5. Certain construction operations such as utility work and roadway/sidewalk reconstruction may restrict access/egress on some roads and to businesses and abutters. Under these circumstances, the Contractor is required to schedule his operations during off-peak hours or late evenings and in small stretches so that a particular work activity can be completed in the shortest possible time.

   The Contractor is required to give abutting property owners 48 hours notice of periods when access/egress will not be available. It is again stressed that the City of Quincy considers the access/egress to abutting residences and businesses of critical importance and the Contractor must implement provisions of safe access/egress.

6. Particular care shall be exercised to establish and maintain such methods and procedures that will not create hazards of any nature. Traffic control, safety devices and/or signs having messages that are irrelevant to normal traffic conditions will be removed or properly covered at the end of each work period. Signs are to be kept clean at all times and legends shall be distinctive and unmarred.

7. In areas of high pedestrian and vehicular traffic volume, the Contractor is required to remove all waste materials and construction equipment from the work site and clean and make the site and its approaches safe on a daily basis. The construction equipment shall not be parked overnight on the site or the adjacent roads unless permitted by the Engineer.

8. In the event that the digital controllers are not available from the manufacturer when needed, the Contractor shall provide temporary mechanical controllers at no extra cost.

9. Night watchmen may be required where special hazards exist. These shall be provided by the Contractor as part of the bid.

10. Unless permission to close a street is received in writing from the City, all excavated materials shall be placed so that vehicular and pedestrian traffic is maintained at all times. If the Contractor's operations cause traffic hazards, appropriate safety measures satisfactory to the Engineer shall be implemented immediately.

11. Detours around construction will be subject to the approval of the City Traffic Engineer. where detours are permitted, the Contractor shall provide all necessary barricades, flashers, flashing arrows and sighs in conformance with the Local and State regulations and standards to divert the flow of traffic. The Engineer will strictly control the periods when traffic is being detoured.

12. The Contractor will be responsible for posting signage that clearly states that any vehicle impeding the progress of construction will be towed at the Owner’s expense. If Contractor fails to post such

signs, Contractor will be responsible for **all** towing charges.

13. The Contractor will be fully responsible for all injuries or claims, damage to public and private properties, and any violations of the local, state or federal regulations resulting from his construction operations whether or not police protection has been provided. The services of uniformed traffic police shall in no way relieve the Contractor of its responsibilities under the Contract.

PART 2 – PRODUCTS (not applicable)

PART 3 – EXECUTION (not applicable)

*** END OF SECTION ***

SECTION 01050 - CONTROL OF WORK

PART 1 - GENERAL

1.01 PROJECT SCHEDULES

A. The Contractor shall furnish plant and equipment to secure a satisfactory quality of Work and a rate of progress to insure a timely completion of the work.

B. The Contractor shall follow the agreed construction schedule, and all work progress shall be monitored against the on a bi-weekly basis, as required.

1.02 SITE SUPERINTENDENCE & WORK FORCE

A. The Contractor shall provide, at its own expense, during the entire course of the work, a competent full-time job superintendent to supervise the Contractor's employees, equipment operations and the general coordination and management of the project. The superintendent shall not work part-time as a tradesman, nor shall he be removed from the job except with the written permission of the Engineer.

B. The Contractor shall furnish a labor force, which will work in harmony and accord with all other labor forces taking part in, or connected with this project. The Contractor shall also promptly remove from work on this project any superintendent, assistant or workman who, in the opinion of the Engineer, is incompetent, unskillful, disruptive, or disorderly, and no person so removed from the work shall be re-employed on this project without the Engineer's written consent.

1.03 COORDINATION WITH LOCAL AGENCIES

A. The Contractor shall coordinate its activities with the Police, Traffic, Fire and Department of Public Works (DPW) in the City, as required.

B. The Contractor shall maintain all area services and public amenities at all times and shall provide the DPW with an address at which it can be contacted in an emergency. Upon notification by the City or the Engineer, the Contractor shall promptly restore services or make repairs as necessary or as directed.

C. The Contractor shall immediately notify utility companies of any damage to their utilities resulting from its construction operations.

D. The Contractor shall notify Dig Safe® at 1-800-322-4844 at least 72 hours before excavating in any public way.

E. The Contractor shall give at least 48 hours written notice to the Engineer and the effected businesses, utilities, residents and abutters prior to the commencement of work on roads and utilities effecting traffic safety and safe access for abutters and performance of other normal area activities.

F. During the progress of the work, the Contractor shall remove debris, sweep and sprinkle water in work areas, maintain the area as necessary to minimize the creation and dispersion of dust. Calcium chloride shall not be used to control the dust problems.

1.04 SITE WORK

A. The Contractor shall, without additional compensation, be required to provide safe and convenient access to all abutters during the prosecution of the Work.

B. All construction areas shall be adequately safeguarded by providing temporary barricades, caution signs, lights and other means to prevent accidents to persons, and damage to property. The Contractor shall, at

its own expense, provide suitable crossing from travel by pedestrians and workmen and take precautions to prevent injury to the public due to its construction operations. All excavated materials, equipment, or stockpiles that could be dangerous to the public shall be protected, barricaded, well lighted at nights, and/or removed off-site as directed by the Engineer.

C. The Contractor shall be responsible for the protection of all public and private property. Any direct or indirect damage done to public or private property for any reason due to the Contractor's operations shall be restored by the Contractor, at its own expense to a condition equal to or better than existed before the damage.

D. All open excavations shall be adequately safeguarded by providing temporary barricades, caution signs, lights, flares and other means to prevent injuries to persons and damage to property. The Contractor shall, at its own expense, provide suitable and safe means for completely covering all open trench excavations (backfilling or covering with steel plates of adequate strength) and for accommodating travel when work is not in progress. Bridges provided for access to private property during construction shall be removed when no longer required.

E. Test pits for the purpose of locating underground pipe lines, structures, or to determine the sub-surface conditions prior to or during construction shall be excavated and backfilled by the Contractor at his own expense regardless of whether the test pits are dug at the direction of the Engineer or for the convenience of the Contractor. Test pits shall be backfilled immediately and the surfaces restored and maintained in a manner satisfactory to the Engineer.

F. All precautions shall be taken to prevent freezing or damage to any of the exposed or partially uncovered utility lines. All trenches shall be backfilled as soon as possible and immediately followed by an installation of temporary bituminous surface. The roadway shall be free of construction debris and excavated material and shall be relatively smooth to provide safe passage.

G. Necessary access for fire apparatus and other emergency vehicles must be maintained at all times. Fire hydrants and water holes for fire protection on or adjacent to the project site shall be kept accessible to the fire apparatus at all times, and no obstructions shall be placed within 10 feet of any such facility.

H. When work at the site necessitates the temporary placement of vehicles, equipment, materials or workers in public streets, sidewalks or walkways, the Contractor shall provide and use all necessary warning devices, barricades, signs, special apparel, etc., in the performance of the work, as set forth in Section 250 of the Standard Specifications.

I. No pavement work shall be done between December 15th and March 31st unless specifically permitted by the Engineer. Therefore, the Contractor shall not begin and construction which cannot be satisfactorily completed before December 15th. The Contractor shall not have any claim for extension of time for completion of the Work under this contract as a result of this restriction.

1.05 <u>INTERFERENCE WITH EXISTING WORKS</u>

A. The Contractor shall at all times conduct its operations so as not to interfere with the existing works. The Contractor shall develop a program, with the approval of the Engineer and interested officials, to provide for construction and putting into service of the new works in an orderly manner.

B. All work connected with cutting into and reconstruction of existing pipes or structures shall be planned to interfere with the operation of the existing facilities for the shortest possible time when the demands on the facilities best permit such interference.

C. The Contractor shall have no claim for additional compensation by reason of delay or inconvenience in adapting its operations to meet the above requirement.

D. Pipe lines will be located substantially as indicated on the drawings, but the City reserves the right to make modifications in alignment, sizes, fittings and appurtenances to suit field or the existing system operation/design conditions. This type of modification shall not relieve the Contractor from his contractual obligations in laying, jointing, and installing difference additional items, as required.

E. Where dimensions and location of existing structures are of importance in the installation or connection of any part of the work, the Contractor shall verify such dimensions and locations in the field at its own expense, before fabricating or ordering any material or equipment.

1.06 INTERFERENCE WITH STREETS/SIDEWALKS

A. The Contractor shall not close or obstruct any portion of a street, road, or private way without obtaining permits to perform work within limits of public ways from the DPW.

B. Streets, roads, private ways and walks under construction shall be maintained so as not to endanger the public/private properties and safety of the traveling public and residents at all times. The Contractor shall be fully responsible for all damages arising out of its operations and for the adequacy of safety measures provided at each site.

C. If the closure of a street of road is necessary, the Contractor shall notify the Police, Fire, Traffic and DPW and shall cooperate with the Traffic Department in the establishment of alternate routes. The Contractor shall provide and install the required number of detour signs (plainly marked and well-lighted) and take all other safety measures necessary to minimize confusion.

D. Along the location of work, all fences, stone walls, curbs, drives and walks, bushes, trees, shrubbery and other physical features which are within the limits of the streets or are associated with private property shall be protected to the satisfaction of the Engineer and to the satisfaction of the property owner(s).

E. Fences and other features removed by the Contractor for site access are to be restored in the location indicated by the Engineer as soon as conditions permit. All damages to existing physical feature shall be repaired to the satisfaction of the Engineer and the satisfaction of the affected property owner(s). All protection, repair, restoration and/or replacement work required shall be at the Contractor's expense.

1.07 PROTECTION/RELOCATION OF EXISTING STRUCTURES/UTILITIES

A. The Contractor shall assume full responsibility for the protection of all buildings, structures/utilities, public or private, including poles, signs, services to buildings, utilities in the street, (gas, water, sewer, drains, the electric and telephone, cable and the associated appurtenances) whether or not these are shown on the drawings. Any damage resulting from the construction operations shall be repaired at the Contractor's expense.

B. The City will provide the Contractor with all existing information to determine the location of existing lines and appurtenances for sewer, water and drainage systems. The Contractor, however, shall bear full responsibility for ascertaining the correct locations of all utility lines and associated structures and appurtenances before starting construction work.

C. The identification, relocation and/or resetting of hand-holes, manholes, vaults, valves, and other distribution control devices for the electric, gas, and telephone cable systems, shall be the responsibility of the respective utility companies. However, the Contractor shall obtain a comprehensive list of all such appurtenances from the utility companies, verify their physical location and shall be fully responsible for their protection during the construction operations.

D. All costs charges or damages resulting from lack of comprehensive pre-construction investigations related

to the above items shall be borne by the Contractor.

E. Protection and temporary removal and replacement of existing utilities and structures as described in this section shall be considered as a part of the work under the Contract and all costs in connection therewith shall be borne by the Contractor.

F. In all public streets or private ways, except for City-owned utilities (water mains, sewers and drains), all relocation of utilities required for construction of the contract work shall be performed by the appropriate utility organization unless agreed otherwise by the utility company. The Contractor shall bear all expenses incurred because of utilities damaged due to its operations.

G. The operation of existing utilities shall not be interrupted except with written permission of the City and the operator of such utilities. The Contractor shall allow ample time and resources to implement all measures required for the continuation of existing utility operations. The Contractor shall request and coordinate all utility relocations, subject to permission of the Engineer. The Contractor shall comply with all regulations, standards, methods and procedures particular to the utility organizations involved.

H. Utility relocation for the sole purpose of making excavation easier for the Contractor shall not be allowed. Should the Contractor desire to relocate publicly-owned utilities such as water mains, sewers and drains for the sole purpose of making excavation easier, they shall be relocated at the Contractor's expense.

1.08 PROTECTION OF TREES AND SHRUBS

A. The Contractor shall avoid all damage to trees along and adjacent to the work area. No tree or shrub shall be removed without the approval of the Engineer.

B. If during the progress of the work, the Contractor encounters any upland state-listed species on the construction site, the matter shall be immediately reported to the Engineer, the Quincy Conservation Commission or Arborist, and further reported to the appropriate state agencies having jurisdiction over these matters.

C. All measure required for the protection of trees, shrubs and other resource areas shall be considered to be part of the work to be done under these specifications at no additional cost to the City.

1.09 PROTECTION AGAINST EROSION

A. The Contractor shall take precautions during construction to minimize erosion and run-off of polluting substances such as silt, clay, fuels, oils, bitumen's, and calcium chloride into the water resource areas.

B. Disposal of drainage shall be in an area approved by the City. Drainage water shall not be disposed of until silt and other sedimentary materials have been removed.

C. Stacked bales of hay shall be provided at points where drainage from the work site leaves the site to reduce the sediment content of the water. Sufficient bales of hay shall be provided such that all flow will filter through the hay. Other methods that reduce the sediment content to an equal or greater degree may be used as approved by the Engineer.

D. Drainage leaving the site shall flow to watercourses in such a manner to prevent erosion.

E. Erosion control measures must be adequate to ensure that turbidity in the receiving water will not be increased more than 10 standard turbidity units (s.t.u.), or as otherwise required by the state or other controlling body, in waters used for public water supply or fish unless limits have been established for the

particular water. In surface waters used for other purposes, the turbidity must not exceed 25 s.t.u., unless otherwise permitted.

F. The Contractor shall receive not direct payment for any costs incurred instituting erosion control measures, as stipulated herein or whatever is necessary to provide the necessary protection against erosion.

1.10 SITE CLEAN-UP AND DISPOSAL OF SURPLUS WASTE MATERIAL

A. The Contractor shall remove and dispose of all surplus and/or waste materials including surplus excavation, broken pavement, lumber, metal pipe and appurtenances, old equipment, temporary structures, and any other refuse from the construction operations.

B. Stone base and/or gravel base materials, manhole/catch basin castings, valves, gates, etc., if not used in the project, will remain the property of the City of Quincy unless specifically directed by the Engineer to dispose of the materials off-site. If the City decides to keep the materials, the Contractor will be required to load and haul the materials to the DPW yard at 55 Sea Street, Quincy, at no additional cost.

C. In order to prevent environmental pollution arising from the construction activities, the Contractor and sub-contractors shall comply with all applicable federal, state and local laws and regulations concerning waste material disposal, as well as the specific requirements stated in this section and elsewhere in the specifications specified herein.

D. The disposal of excess excavated materials in wetlands, stream corridors, and plains is strictly prohibited even if the permission of the property owner is obtained. Any violation of this restriction by the Contractor or its employees will be brought to the immediate attention of the responsible regulatory agency, with a request that appropriate action be taken against the offending parties.

E. All new and existing interfacing pipe lines, appurtenant structures within the project limits and the adjacent effected section shall be left in a clean and operable condition at the completion of the work. It shall be the responsibility of the Contractor to make certain that the new systems carrying run-off, sewage and water (as applicable) within the limits of this project operate efficiently to their points of discharge into the existing system. The Contractor without additional compensation shall remove all debris in pipes and structures as a result of the Contractor's operations.

*** END OF SECTION ***

SECTION 01055 - TEMPORARY CONSTRUCTION FACILITIES

PART 1 - GENERAL

1.01 DESCRIPTION

A. The Contractor shall provide all temporary construction support facilities and controls, such as staging area, project signs, temporary access road, temporary stockpile areas, pre-construction surveys and bench mark and base lines to control and to layout the works as necessary and as specified or as directed by the Engineer. The contractor shall also provide all utility services and miscellaneous supplies required for satisfactory control of the works.

1.02 CONTRACTOR'S STAGING AREA

A. The Contractor's attention is directed to the fact that the City will not provide a staging area for the storage of construction plant equipment, material or supplies. All permits required for selection of staging area and the Contractor must obtain its proposed use from the local or state agencies having jurisdiction over the area. The cost of obtaining a staging area and the associated permits shall be considered to be included in the bid prices for the various items of work as listed in the Bid Form.

B. At no time shall any material, equipment, construction plant be stored on the beaches, public streets, private ways, sidewalks and other public areas.

C. The Contractor shall not enter or occupy private land outside of easements, except by permission of the landowner and the approving public agencies.

D. Only the equipment and materials ready for incorporation into the work shall be delivered and temporarily stacked on site. All materials and equipment thus delivered shall be placed so as not to injure any part of the work or the existing facilities and such that free access can be had at all times to all parts of the work.

E. All unrelated or idle construction plant waste and/or excess materials shall be removed from the site immediately.

1.03 TEMPORARY ACCESS ROADS

A. The Contractor shall construct temporary access/haul roads and temporary equipment and material storage area where needed or as directed by the Engineer to move men, equipment and materials to otherwise inaccessible or hard to reach areas. Such facilities where located in environmentally sensitive areas shall be as permitted by the Quincy Conservation Commission and subject to its regular monitoring, completion inspection and restoration to original conditions.

1.04 PROJECT SIGN

A. The Contractor shall furnish and install signs at the project site and at other locations as directed by the Engineer. The sign shall be made of 3/4-inch thick exterior grade high-density overlay plywood, and shall be mounted on 4-in. x 4-in. wooden posts. The sign shall be 4-ft. x 8-ft. in size and shall have a blue background and white letters. The text and its layout shall be provided to the Contractor before the start of Work.

B. Letter size shall be in proportion to layout and text and shall be of professional quality. The Contractor shall maintain the sign (including repainting), in a satisfactory condition for the life of this Contract.

C. Upon completion of the project and when directed, the sign shall become the property of the Contractor and shall be satisfactorily removed and disposed of by the Contractor off the site. The costs of furnishing,

erecting, and maintaining the project sign shall be considered to be included in the bid prices for the various items of work listed in the Bid Form. For layout of project sign, please refer to Appendices.

*** END OF SECTION ***

SECTION 01090 - DEFINITIONS AND STANDARDS

PART 1 - GENERAL

1.01 DEFINITIONS:

A. GENERAL EXPLANATION: A substantial amount of specification language constitutes definitions for terms found in other Contract Documents, including Drawings which must be recognized as diagrammatic in nature and not completely descriptive of requirements indicated thereon. Certain terms used in Contract Documents are defined generally in this article. Definitions and explanations of this section are not necessarily either complete or exclusive, but are general for the Work to extent not stated more explicitly in another provision of the Contract Documents.

B. GENERAL REQUIREMENTS: The provisions or requirements of Division-1 sections. General Requirements apply to entire Work of Contract and, where so indicated, to other elements which are included in Project.

C. OWNER: The term “Owner” shall mean the City of Quincy when referring to the contracting and awarding authority. The term “Owner” shall mean the Department of Public Works when referring to technical specifications and bidding authority.

D. INDICATED: The term "Indicated" is a cross-reference to details, notes or schedules on Drawings, to other paragraphs or schedules in the Specifications, and to similar means of recording requirements in Contract Documents. Where terms such as "shown," "noted," "scheduled," and "specified" are used in lieu of "indicated," it is for purpose of helping reader locate cross-reference, and no limitation of location is intended except as specifically noted.

E. DIRECTED, REQUESTED, ETC.: Where not otherwise explained, terms such as "directed," "requested," "authorized," "selected," "no exceptions," "required," "accepted," and "permitted" mean "directed by ENGINEER," "requested by ENGINEER," etc. However, no such implied meaning will be interpreted to extend ENGINEER's responsibility into CONTRACTOR'S area of construction supervision.

F. NO EXCEPTIONS: Where used in conjunction with ENGINEER's response to submittals, requests, applications, inquiries, reports and claims by CONTRACTOR, the meaning of terms "no exceptions taken" will be held to limitations of ENGINEER's responsibilities and duties as specified in General and Supplementary Conditions. In no case will "no exceptions taken" by ENGINEER be interpreted as a release of CONTRACTOR from responsibilities to fulfill requirements of Contract Documents.

G. PROJECT SITE: The space available to CONTRACTOR for performance of the WORK, either exclusively or in conjunction with others performing other WORK as part of the Project. The extent of Project site is shown on the DRAWINGS, and may or may not be identical with description of the land upon which Project is to be built.

H. FURNISH: Except as otherwise defined in greater detail, term "furnish" is used to mean supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, etc., as applicable in each instance.

I. INSTALL: Except as otherwise defined in greater detail, term "install" is used to describe operations at Project site including unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing protecting, cleaning and similar operations, as applicable in each instance.

J. PROVIDE: Except as otherwise defined in greater detail, term "provide" means furnish and install, complete and ready for intended use, as applicable in each instance.

K. INSTALLER: The entity (person or firm) engaged by CONTRACTOR or its Subcontractor or sub-Subcontractor for the performance of a particular unit of Work at Project site, including installation, erection, application and similar required operations. It is a general requirement that such entities (Installers) be expert in operations they are engaged to perform.

L. TESTING LABORATORY: An independent entity engaged to perform specific inspections or tests of the Work, either at Project site or elsewhere; and to report and (if required) interpret results of those inspections or tests.

M. SUPPLY CONTRACTOR: The Contractor for the Meter Replacement and Radio Read Project Contract 02 – Water Meters furnishing water meters and remote encoders.

N. FIXED NETWORK CONTRACTOR: The Contractor for the Meter Replacement and Radio Read Project Contract 01 – Fixed Network Automatic Meter Reading System furnishing the MTUs.

1.02 SPECIFICATION EXPLANATIONS:

A. Overlapping and Conflicting Requirements: Where compliance with 2 or more industry standards or sets of requirements is specified, and overlapping of those different standards or requirements establishes different or conflicting minimums or levels of quality, most stringent requirement (which is generally recognized to be also most costly) is intended and will be enforced, unless specifically detailed language written into the Contract Documents(not by way of reference to an industry standard) clearly indicates that a less stringent requirement is to be fulfilled. Refer apparently- equal-but-different requirements, and uncertainties as to which level of quality is more stringent, to ENGINEER for a decision before proceeding.

B. Contractor's Options: Except for overlapping or conflicting requirements, where more than one set of requirements are specified for a particular unit of Work, option is intended to be CONTRACTOR'S regardless of whether specifically indicated as such.

C. Minimum Quality/Quantity: In every instance, quality level or quantity shown or specified is intended as minimum for the Work to be performed or provided. Except as otherwise specifically indicated, actual Work may either comply exactly with that minimum (within specified tolerances), or may exceed that minimum within reasonable limits. In complying with requirements, indicated numeric values are either minimums or maximums as noted or as appropriate for context of requirements. Refer instances of uncertainty to ENGINEER for decision before proceeding.

D. Specialists; Assignments: In certain instances, specification text requires (or at least implies) that specific Work be assigned to specialists or expert entities, who must be engaged for performance of those units of Work. These must be recognized as special requirements over which CONTRACTOR has no choice or option. These assignments must not be confused with (and are not intended to interfere with) normal application of regulations, union jurisdictions and similar conventions. One purpose of such assignments is to establish which party or entity involved in a specific unit of Work is recognized as "expert" for indicated construction processes or operations. Nevertheless, final responsibility for fulfillment of entire set of requirements remains with CONTRACTOR.

1.03 INDUSTRY STANDARDS:

A. General Applicability of Standards: Applicable standards of construction industry have same force and effect (and are made a part of Contract Documents by reference) as if copied directly into Contract Documents, or as if published copies were bound herewith.

1. Referenced standards (referenced directly in Contract Documents or by governing regulations) have precedence over non-referenced standards which are recognized in industry for applicability to the Work.

2. Non-referenced standards recognized in the construction industry are hereby defined, except as otherwise limited in Contract Documents, to have direct applicability to the Work, and will be so enforced for performance of the WORK.

B. Copies of Standards: Provide where needed for proper performance of the Work; obtain directly from publication sources.

C. Abbreviation and Names: Where acronyms or abbreviations are used in SPECIFICATIONS or other Contract Documents they are defined to mean the industry recognized name of trade association, standards generating organization, governing authority or other entity applicable to context of text provision. Refer to "Encyclopedia of Associations," published by Gale Research Co., available in large libraries.

1.04 SUBMITTALS:

A. Permits, Licenses and Certificates: For the OWNER's records, submit copies of permits, licenses, certifications, inspection reports, releases, notices, receipts for fee payments, judgements, and similar documents, correspondence and records established in conjunction with compliance with standards and regulations bearing upon performance of the Work.

PART 2 - PRODUCTS (not applicable)

PART 3 - EXECUTION (not applicable)

*** END OF SECTION ***

SECTION 01100 - TEMPORARY SHEETING, SHORING, BRACING AND DECKING

PART 1 - GENERAL

1.01 DESCRIPTION

A. The work to be done under these items shall conform to the relevant provisions of Sections 100 and 900 of the Standard Specifications, requirements of this Section and the work as shown on the drawings.

B. Steel sheet piling shall conform to Section M8.05.4 of the Standard Specifications and shall be standard interlocking type with necessary standard corner sections.

C. Structural steel for bracing shall be standard H, I or wide flange beams conforming to ASIM Standard Specification A-36-69, or pipe sections conforming to ASIM Standard Specification A-252-68.

D. The Contractor shall furnish, place and maintain all sheeting, shoring, underpinning, bracing, trench boxes, and decking as is required to support structures, excavations, embankments, pavements, public amenities, and utilities in order to prevent settlements/movements and for the reason of safety for pedestrians, vehicular traffic, life and property.

E. If at any point during the excavation of the works, sufficient or proper supports have not been provided, the Engineer may order installation of additional supports at the expense of the Contractor.

F. All design work for temporary sheeting, bracing, shoring, trench boxes and decking in critical areas where the safety and security of public and private property is of concern shall be performed by a **Professional Engineer registered in the Commonwealth of Massachusetts engaged by the Contractor.**

G. No work will be allowed until results of the final review of the design and construction sequence is approved by the Engineer. The review of such a submittal by the Engineer shall not relieve the Contractor of full responsibility for the structural adequacy of the proposed systems.

1.02 DESIGN CRITERIA

A. The pressure diagram shall extend four feet (4') below the bottom of excavation for all excavation stages. Pressures beyond four feet below the excavation level shall be considered to be balanced by passive resistance.

B. The pressure diagram includes the contribution of a 300 psf uniformly distributed surcharge load at the surface. If additional surcharge loads or high concentrated loads are anticipated, the resultant increase in pressure on the sheeting shall be added to the pressure diagram.

C. The allowable stresses for structural steel member and connections shall be as per AISC at full depth of excavation: For temporary condition, prior to reaching full depth of excavation, add up to 20% on the AISC allowed limits.

D. The Contractor shall plan the sequence of operations such that no loss of ground occurs behind the sheeting which will cause subsidence of adjacent retaining walls, roadway, utilities and structures.

E. Timber and steel used for bracing, interior structural members and connections shall be as designed by the Contractor's Professional Engineer. Timber or steel used for bracing shall be new or undamaged used material which does not contain splices, cutouts, patches or other alterations which would impair its integrity or strength. All timber used shall be sound spruce, pine or hemlock planed on one side and either tongue and grooved or spliced. Timber sheeting shall not be less than nominal 2-inches thick.

1.03 SHEETING/BRACING AND SHORING

A. Work shall not be started until all materials and equipment necessary for construction are on site or available for immediate use, as required.

B. All sheeting shall be securely braced to withstand all pressures to which it may be subjected and be sufficiently tight to minimize any resulting lowering of the groundwater level outside the excavation, as required in section titled "Dewatering". Every effort shall be made to avoid breaking the continuity of the lock during driving sheet piles.

C. If boulders or very dense soils are encountered, making it impractical to drive a section to the desired depth, the section shall be treated as directed by the Contractor's System Design Engineer.

D. Where sheeting is to be used, it shall be driven ahead of excavation operations to the extent practicable so as to avoid the loss of material from behind the sheeting. Where voids occur outside of the sheeting, they shall be filled immediately with well-graded sand or gravelly sand and compacted.

E. The Contractor shall leave in place to be embedded in the backfill, or concrete, all wood sheeting, bracing, etc. When directed by the Engineer, the Contractor shall leave in place any and all other sheeting, bracing, etc., for preventing injury to the public, to properties and to adjacent structures.

F. All sheeting and bracing that is not necessary to be left in place shall be removed. Unless otherwise specified, sheeting to be left in place shall be cut off and left in place at a line 2-feet below finished grade. All cut off material shall be removed from the site.

G. Steel sheeting may be driven by impact/vibratory methods as approved. All sheeting and piles shall be straight and with proper alignment as indicated or as directed. Sheet piles may be removed on completion of permanent backfilling unless directed otherwise.

H. Each bracing level shall be completely installed before the excavation proceeds more than three feet (3) below the center line of the bracing level. The bracing shall be installed complete with wales, knee braces, cross braces and all necessary connections to assure full design capacity. All voids between the sheeting face and wales shall be wedged with wood to prevent lateral movement of the sheeting or piles. All welding shall conform to American Welding Society Code AWS-D-1.1-72.

I. The responsibility for the satisfactory design, fabrication, construction and maintenance of sheeting and bracing systems shall rest with the Contractor. Any work done including incidental construction which is not acceptable shall be either repaired or replaced by the Contractor at its expense.

J. The Contractor shall also be solely responsible for repairing all damage associated with and resulting from design, fabrication, installation, performance and removal of the sheeting/piling and bracing systems.

K. All sheeting, shoring and bracing operations shall be designed and executed to prevent injury to persons or damage to structures, facilities, utilities and services. Any injuries to persons and damage to the work occurring as a result of settlement, water or earth pressure or other causes due to inadequate bracing and/or construction operations shall be satisfactorily repaired or replaced in a satisfactory manner, at no additional expense to the City.

1.04 DECKING

A. The Contractor shall install decking over street openings where traffic requires unrestricted use of the street. At such locations work may be suspended during periods of heavy traffic, to insure the public safety.

B. All street openings unless otherwise instructed by the Engineer shall be installed with a trench box or the excavations sheeted and braced regardless of its depth.

C. Before the decking and supporting systems are placed, the Contractor shall submit to the Engineer detailed plans of the proposed structure. The decking materials be wood or steel. The decking and supports shall be of sufficient strength to carry a load of 200 psi over the entire deck area or 10 tons on an axle with wheels five (5) feet on centers without exceeding the allowable stress specified in the AASHTO Standard Specifications for Highways and Bridges.

D. Decking placed at an opening shall remain over the open excavation until backfilling is complete except to provide access while cleaning or lining the pipe, or for the removal and replacement of valves, or for other work under this contract and as directed by the Engineer.

*** END OF SECTION ***

SECTION 01125 - DEWATERING

PART 1 - GENERAL

1.01 DESCRIPTION

A. The work under this section shall conform to the relevant provisions of Section 100 of the Standard Specifications, and the following:

B. The Contractor shall furnish all labor, materials, equipment and incidentals required to design, install, operate and remove temporary dewatering and water handling systems to prevent groundwater, surface waters and tidal flows, etc., from entering the work areas and to provide a firm, dry and stable foundation for structures/pipes, and appurtenances.

C. Dewatering includes lowering the ground water table, intercepting seepage flows etc., or conveying surface flows to desired locations through the use of pumps. Water handling systems may include ponding in designated areas, dikes, channels, conduits, cofferdams and other methods acceptable to the Engineer.

D. Normal dewatering operations utilize conventional pumps installed in open excavations, ditches or sumps. Special dewatering operations utilize single or two stage wellpoints, deep wells, or eductor/ejector systems installed in drilled holes or jetted in place.

E. No work shall be started until the design and construction sequence is reviewed and approved by the Engineer. The review of such a submittal by the Engineer shall not relieve the Contractor of full responsibility for the adequacy of its dewatering and water handling systems.

1.02 DESIGN AND PERFORMANCE REQUIREMENTS

A. All excavation, construction work and backfilling shall be done in the dry and on a firm sub-grade. The following conditions shall be met in all areas where dewatering operations are required:

1. The dewatering system installed shall maintain the groundwater level at least 6-inches below the proposed finished elevation at the bottom of the excavation. The dewatering and water handling systems shall maintain a dry and stable sub-grade until the structures, seawalls, pipes, and appurtenances have been completed to the extent that they will not float or otherwise get damaged.

2. If conventional dewatering methods are inadequate to ensure dry and stable conditions for structural foundations, the Contractor shall be required to use special dewatering methods, as necessary. The well points system, when used, shall be driven to elevations required for proper dewatering.

3. All main wellpoint equipment shall be electrically operated and shall run on commercial power. Standby equipment shall be independent of commercial power and shall provide dewatering upon failure of primary pumps or power sources.

4. The dewatering and water handling systems shall be designed by a registered professional engineer experienced in similar work. All geotechnical investigations and design of dewatering and water handling systems and for any subsequent modifications thereto shall be at the Contractor's expense.

5. The dewatering, water handling and the required excavation support systems shall be designed so that the groundwater level within the work area does not adversely effect the adjacent structures and utilities or wells.

B. All information about sub-surface conditions shown on the drawings or included in the specifications is not guaranteed. The City or the Engineer assumes no responsibility for its accuracy. The Contractor shall perform all necessary soil, groundwater or other site investigations to ascertain the existing sub-surface conditions in the areas where excavation, dewatering and construction work is required. It would be the Contractor's responsibility to fully acquaint itself with the existing site conditions for the proper design of sheeting, bracing and dewatering systems and for the selection of the proper construction equipment to perform the work. Unfamiliarity with the existing site and/or sub-surface conditions shall not be accepted as a basis for any claims for extra work.

1.03 DEWATERING OPERATIONS

A. All work shall be performed so as to protect existing structures and pipelines and shall not cause loss of ground or disturbance to the bearing soils or to soil supporting adjacent structures. The Contractor shall be solely responsible for damage to properties, buildings or structures, sewers and other utility installations, pavements and sidewalks, etc. that may result from dewatering and water handling operations.

B. Water shall not be allowed to rise above concrete or brick masonry within 24 hours after being placed, nor shall moving water be allowed to rise over any masonry for four days. In no event shall water be allowed to rise so as to cause unequal pressures in structures until 72 hours after the concrete or mortar has been placed/set.

C. Prior to any trench/foundation excavation, dewatering systems shall be installed in the area of initial excavation and operated sufficiently to demonstrate adequacy of the system to achieve and maintain the desire water table elevations. The system shall be modified, if required, to maintain such capability.

D. Dewatering and water handling methods/procedures or equipment which cause damage to new or existing facilities shall be expeditiously modified or replaced as directed.

1.04 DISPOSAL OF DRAINAGE FLOWS

A. All drainage waters shall be disposed of in an approved manner. The existing storm drainage system may not be used for water disposal, except as permitted by the Engineer.

B. The drainage resulting from pumping operations shall be discharged so that it does not damage adjacent properties.

C. All state, federal and local regulations including the requirements of the Quincy Conservation Commissioner's Order of Conditions shall be enforced.

D. At the completion of construction work, and when approved by the Engineer, all pipe, pumps, equipment, accessories for monitoring systems and cofferdams, etc., shall be removed from the site.

E. All areas disturbed/damaged due to the dewatering and/or water handling operations shall be restored to at least the condition that existing before the work started.

*** END OF SECTION ***

SECTION 01155 - SCHEDULES, REPORTS, PAYMENTS

PART 1 - GENERAL:

1.01 COORDINATION:

A. Coordinate both the procedural timing and the listing (naming and sequencing) of reports/activities required by provisions of this section and other sections. Update at monthly or shorter time intervals. Make appropriate distribution of each report and updated report to entities involved in the Work including ENGINEER and OWNER. In particular, provide close coordination of progress schedule, schedule of values, listing of subcontracts, schedule of submittals, progress reports, and payment requests.

1.02 PROGRESS SCHEDULE:

A. Critical Path Method Diagram: Secure critical time commitments for performing major elements of the Work. Within 30 days of date established for "Commencement of the Work", submit a comprehensive critical path type progress schedule indicating activity-coded symbols for each major category or unit of work to be performed at site, and including minor units which are, nevertheless, involved in overall sequencing of the Work. Arrange schedule to graphically show major sequences required in intermeshing of work, and to show how Substantial Completion is scheduled to allow for ENGINEER's procedure for certification thereof. Prepare and maintain the critical path diagram schedule on sufficiently wide sheet or series of sheets of stable transparency or other reproducible stock, to show required data clearly for entire Construction Time, and to permit reproduction for required distribution.

1. Phasing: Arrange schedule of work delineating the order on which work in the meter routes within the City will be completed with notations to show how sequence of work is affected by requirements for phased completion, work by separate contractors, work by OWNER, coordination with existing work, non-interruptable services, site restrictions, provisions for future work, seasonal variations, environmental control and similar provisions of total Project. Refer to the other sections of Division 1 and other Contract Documents for requirements.

2. Individual Meter Reading Routes: Within each route, show dates for notification of homeowners, and business owners, and provide estimated percentage-of-completion markers at 10 percent increments (on a number of installations per route basis). As work in each meter reading route progresses, mark each with a contrasting mark (at 10 percent increments) to show actual percentage-of-completion.

3. Cost Correlation: Immediately below date line at heading of chart, provide a double-line cost correlation line ("Precalculated" and "actual") to show dollar-volume of work performed as of same dates used for preparation of payment requests. Refer to subsequent article for cost reporting and payment procedures. Use those same dates as primary vertical lines of schedule.

4. Distribution: Following initial submittal to and response by ENGINEER, print and distribute the critical path diagram to ENGINEER (4 copies), separate CONTRACTORS (if any), principal Subcontractors and Suppliers or fabricators, and others with a need-to-know schedule-compliance requirement. Post copies in Project meeting rooms and field (temporary) offices. Distribute and post subsequent updated issues to same entities, when revisions are made; except delete entities from distribution when they

have completed assigned work and are no longer involved in performance of scheduled work.

5. Update Schedule: Provide updated schedule with each monthly payment request. Updates should highlight any changes in critical path, any delays due to Suppliers, Subcontractors or the CONTRACTOR's own activities. Payment will not be authorized without submitting schedule updates to the ENGINEER.

1.03 REPORTING:

A. Daily Reports: The CONTRACTOR shall prepare a daily report, recording the following information concerning events at the site, and submit duplicate copies to ENGINEER at regular intervals not exceeding weekly intervals:

1. List of personnel at the site.
2. Count of personnel at the site, by job classification.
3. List of equipment and materials on site.
5. Accidents (refer to accident reports).
6. Meetings and significant decisions.
7. Unusual events (refer to special reports).
8. Stoppages, delays, shortages, losses.
9. Emergency procedures, Field Orders.
10. Orders/requests by governing authorities.
11. Change Orders received, implemented.
12. Equipment connected, disconnected.
13. Equipment or system tests and start-ups.
14. Partial completions.
15. Substantial completions authorized.

1.04 SUBMITTAL SCHEDULE:

A. General: Immediately following development and acceptance of fully developed critical path diagram, prepare a complete schedule of submittals. Submit 4 copies of submittal schedule within 10 days of date required for establishment of critical path diagram. Revise schedule monthly to reflect job conditions and progress. Promptly submit revised schedules to ENGINEER for review.

B. Form: Prepare schedule in chronological sequence of "first submittals". Show category of submittal, name of sub- CONTRACTOR, generic description of work covered, related section numbers, activity or event number on critical path diagram, scheduled date for first submission, and blank columns for actual date of submittal resubmittal, and final release or review by ENGINEER.

1.05 PAYMENT REQUESTS:

A. General: See General Conditions for payment procedures. It is recognized that certain applications involve extra requirements, including initial application, application at times of Substantial Completion, and final payment application.

B. Payment Application Times: The "date" for each progress payment is as indicated in CONTRACT.

C. Payment Application Forms: Use forms provided by the ENGINEER.

D. Application Preparation: Except as otherwise indicated, complete every entry provided for on the form, including notarization and execution by authorized persons. Incomplete applications will be returned by ENGINEER without action.

PART 2 - PRODUCTS (not applicable)

PART 3 - EXECUTION (not applicable)

*** END OF SECTION ***

SECTION 01200 - PROJECT MEETINGS

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS:

A. General: Attend the following meetings:
Preconstruction meeting
Progress meetings
Coordination meetings
Post-construction meetings

Meetings will be held at the DPW offices. The ENGINEER will compile minutes of meetings and provide a copy to the CONTRACTOR.

1.02 PERSONNEL:

A. Authority: Persons designated by the CONTRACTOR to attend meetings shall have authority to commit the CONTRACTOR and SUBCONTRACTORS to actions agreed upon in the meetings.

B. Attendance: Assign the same personnel to represent CONTRACTOR at meetings through the entire PROJECT duration. Require attendance of SUBCONTRACTORS when necessary or when requested by the ENGINEER.

1.03 SUBMITTALS:

A. Agenda items: Submit items for agenda at least 24 hours before scheduled meeting time.

1.04 PRECONSTRUCTION MEETING:

A. General: Meeting will be scheduled within 10 days of issuance of NOTICE TO PROCEED. Provide attendance by CONTRACTOR's personnel and all major SUBCONTRACTORS. The ENGINEER will request attendance of other parties involved.

B. Minimum Agenda: The following will be discussed:

1. CONTRACTOR shall submit insurance contacts to the City of Quincy prior to mobilization. Contact information shall include insurance company, insurance agent, address, phone numbers, fax numbers and e-mail addresses;

2. Organizational arrangement of CONTRACTOR's forces and personnel, and those of Subcontractor, suppliers, and the ENGINEER;

3. Channels and procedures for communications;

4. Construction schedule, and submittal schedule including sequence of critical Work.

5. Contract Documents, including distribution of required copies of original documents and revisions;

6. Processing of Shop Drawings and other data submitted to the ENGINEER for review Change Orders.

7. Processing of field decisions and Change Orders;

8. Rules and regulations governing performance of the Work; and

9. Procedures for safety and first aid, security, quality control, housekeeping, and other related matters.

1.05 PROJECT MEETINGS:

A. General: Meetings will be held monthly on a schedule acceptable to CONTRACTOR, ENGINEER, and OWNER.

B. Minimum Agenda:

1. Review, revise as necessary, and approve minutes of previous meeting;

2. Review progress of the Work since last meeting, including status of submittals for approval;

3. Identify problems which impede planned progress;

4. Develop corrective measures and procedures to regain planned schedule; and

5. Complete other current business.

1.06 COORDINATION MEETINGS:

A. General: Meetings will be held as required by the OWNER or ENGINEER for coordinating, expediting and scheduling the WORK. When possible, coordination meetings may be combined with monthly progress meetings.

1.07 POST-CONSTRUCTION MEETINGS:

A. General: Meetings will be held as required to implement the operation of the WORK.

PART 2 - PRODUCTS (not applicable)

PART 3 - EXECUTION (not applicable)

*** END OF SECTION ***

SECTION 01300 - SUBMITTALS

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS:

A. Submittal requirements specified in this section include Shop Drawings, product data, samples and miscellaneous work-related submittals. Individual submittal requirements are specified in applicable sections for each unit of work. Refer to other Division-1 sections, General Conditions, and other Contract Documents for requirements of administrative submittals.

B. Definitions: Work -related submittals of this section are categorized for convenience as follows:

1. Shop drawings include specially-prepared technical data for this Project, including drawings, diagrams, performance curves, data sheets, schedules, templates, patterns, reports, calculations, instructions, measurements and similar information not in standard printed form for general application to several projects.

2. Product data include standard printed information on materials, products and systems; not specially-prepared for this Project, other than the designation of selections from among available choices printed therein.

3. Samples include both fabricated and unfabricated physical examples of materials, products and units of work; both as complete units and as smaller portions of units of work; either for limited visual inspection or (where indicated) for more detailed testing and analysis.

4. Mock-ups are a special form of samples, which are too large or otherwise inconvenient for handling in specified manner for transmittal of sample submittals.

C. Miscellaneous submittals related directly to the Work (non-administrative) include warranties, maintenance agreements, workmanship bonds, photographs, survey data and reports, physical work records, quality testing and certifying reports, copies of industry standards, record drawings, field measurement data, operating and maintenance materials, overrun stock, and similar information, devices and materials applicable to the work and not processed as Shop Drawings, product data or samples.

1.02 GENERAL SUBMITTAL REQUIREMENTS:

A. Scheduling: See Section 01155.

B. Coordination and Sequencing: Coordinate preparation and processing of submittals with performance of the Work so that Work will not be delayed by submittals. Coordinate and sequence different categories of submittals for same work, and for interfacing units of work, so that one will not be delayed for coordination of ENGINEER's review with another. In general, allow 2 weeks for ENGINEER to process submittals.

Determine and verify all interface conditions, catalog numbers and similar data.

Coordinate with other trades.

Indicate all deviations from the requirements of the CONTRACT DOCUMENTS.

C. Preparation of Submittals: Provide permanent marking on each submittal to identify Project, date, CONTRACTOR, Subcontractor, submittal name, sequential numbers, and similar information to distinguish it from other submittals. Show CONTRACTOR's executed review and marking and provide space for Engineer's "Action" marking. Package and sequentially number each submittal appropriately for transmittal and handling. Submittals which are received from sources other than through CONTRACTOR's office will be returned by ENGINEER "without action". All submittal data shall be clearly marked original information. Photocopies will not be permitted and will be rejected.

Submittals shall be numbered consecutively beginning with one (1). When an item in any submittal is required to be resubmitted, the number of the original submittal shall be used followed by a capital letter starting with "A" and using consecutive lettering for subsequent resubmittals.

D. Grouping of submittals: Unless otherwise specified, make submittals grouped by specification section, and containing all associated items, to ensure that information is available for checking each item when it is received. Partial submittals may be rejected as not complying with the provisions of the Contract Documents.

E. Transmittal Form: Provide places to indicate Project, date, "To:"; "From:"; names of Subcontractors, manufacturers, required references, category and type of submittal, purpose, description, distribution record (for both transmittal and submittals), sequential number, and signature of transmitter.

F. Number of submittals: Submit 6 copies. Additional copies may be requested by the ENGINEER. 2 copies will be returned to the CONTRACTOR.

1.03 SPECIFIC-CATEGORY SUBMITTAL REQUIREMENTS:

A. General: Except as otherwise indicated in individual specification sections, comply with requirements specified herein.

B. SHOP DRAWINGS: Provide newly-prepared information, on reproducible sheets, with graphic information at accurate scale (except as otherwise indicated), with name of preparer indicated (firm name). Show dimensions and note which are based on field measurement. Identify materials and products in the Work shown. Indicate compliance with standards, and special coordination requirements. Do not allow shop drawing copies without appropriate final "Action" markings by ENGINEER to be used in connection with the Work. Photocopies of catalog cuts will not be accepted.

Submit blue-line or black-line prints.

C. Product Data: Collect required data into one submittal for each unit of work or system; and mark each copy to show which choices and options are applicable to Project. Include manufacturer's standard printed recommendations for application and use, compliance with standards, application of labels and seals, notation of field measurements which have been checked, and special coordination requirements. Maintain one set of product data (for each submittal) at Project site, available for reference by ENGINEER and others.

D. Samples: Provide units identical with final condition of proposed materials or products for the Work. Include "range" samples (not less than 3 units) where unavoidable variations must be expected, and describe or identify variations between units of each set. Provide full set of optional samples where ENGINEER's selection is required. Include information with each sample to show generic description, source or product name and manufacturer, limitations, and

compliance with standards. Samples are submitted for review and confirmation of color, pattern, texture and "kind" by ENGINEER. ENGINEER will not "test" samples (except as otherwise indicated) for compliance with other requirements, which are therefore the exclusive responsibility of CONTRACTOR.

E. Mock-Ups: Mock-ups and similar samples specified in individual specification sections are recognized as a special type of sample. Comply with requirements for "samples" to greatest extent possible, and process transmittal forms to provide a record of activity.

F. Inspection and Test Reports: See Section 01400.

G. Warranties: Refer to "Products" section for specific general requirements on warranties, product/workmanship bonds, and maintenance agreements. In addition to copies desired for CONTRACTOR's use, furnish 2 executed copies, except furnish 2 additional (confirmed) copies where required for maintenance manuals.

H. Standards: Where copy submittal is indicated, and except where specified integrally with "Product Data" submittal, submit a single copy for ENGINEER's use. Where workmanship at Project site and elsewhere is governed by standard, furnish additional copies to fabricators, installers and others involved in performance of the Work.

I. Closeout Submittals: Refer to individual specification sections and to General Conditions for specific requirements.

J. General Distribution: Provide additional distribution of submittals (not included in foregoing copy submittal requirements) to Subcontractors, suppliers, fabricators, installers, governing authorities and others as necessary for proper performance of the Work. Include such additional copies in transmittal to ENGINEER where required to receive "Action" marking before final distribution. Record distributions on transmittal forms.

1.04 ACTION ON SUBMITTALS:

A. Engineer's Action: Where action and return is required or requested, ENGINEER will review each submittal, mark with "Action", and where possible return within 2 weeks of receipt. Where submittal must be held for coordination, or additional time is required for review of complex items, CONTRACTOR will be so advised by ENGINEER without delay.

B. Action Stamp: ENGINEER's action stamp, for use on submittals to be returned to CONTRACTOR, is self-explanatory as marked.

PART 2 - PRODUCTS (not applicable)

PART 3 - EXECUTION (not applicable)

*** END OF SECTION ***

SECTION 01500 - TEMPORARY FACILITIES

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS:

A. Provide temporary facilities including:

1. CONTRACTOR's office and storage facilities.
2. Sanitary facilities
4. Fire protection
6. Temporary enclosures

B. Other Temporary Facilities: See General Conditions.

1.02 QUALITY ASSURANCE:

A. General: Comply with OSHA Regulations, NFPA requirements, and local regulations.

B. Conditions of Use: Install, operate, maintain and protect temporary facilities in a manner and at locations which will be safe, non-hazardous, sanitary and protective of persons and property.

PART 2 - PRODUCTS

2.01 CONTRACTOR'S OFFICE AND STORAGE FACILITIES:

A. General: Provide facilities adequate for CONTRACTOR's administration of Contract, shelter for personnel, and storage of materials and equipment which must be protected from weather. Contractor will provide own facility of sufficient size to store enough materials and supplies to maintain the flow of work,.

B. Telephone: Provide a telephone and fax for work-related use by CONTRACTOR's personnel.

2.02 SANITARY FACILITIES:

A. General: Provide self-contained toilet units in sufficient numbers for use of all persons involved in the Work.

2.03 FIRE PROTECTION AND SAFETY FACILITIES:

A. General: Provide fire extinguishers, first aid facilities and other safety facilities as required by local, state, and OSHA requirements.

2.04 TEMPORARY ENCLOSURES:

A. General: Provide temporary enclosure where indicated and where reasonably required to ensure adequate workmanship and protection from weather and ambient conditions unsatisfactory for the Work, including enclosure where temporary heat is used. Provide tarpaulins with UL label and flame spread of 15 or less or translucent nylon reinforced polyethylene.

PART 3 - EXECUTION

3.01 GENERAL REQUIREMENTS:

A. Provide facilities at the time first required for proper performance of the Work.

B. Remove temporary facilities at earliest reasonable time when no longer required for performance of the Work.

3.02 LOCATION OF FACILITIES: Location of CONTRACTOR'S Office and Storage Facilities to be approved by ENGINEER and OWNER.

*** END OF SECTION ***

SECTION 01600 - PRODUCTS

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS:

A. Definitions:

1. "Products" is defined to include purchased items for incorporation into the Work, regardless of whether specifically purchased for Project or taken from CONTRACTOR'S stock of previously purchased products.

2. "Materials," is defined as products which must be substantially cut, shaped, worked, mixed, finished, refined or otherwise fabricated, processed, installed or applied to the Work.

3. "Equipment" is defined as products with operational parts, regardless of whether motorized or manually operated, and particularly including products with service connections (wiring, piping, etc.).

Definitions in this paragraph are not intended to negate the meaning of other terms used in Contract Documents, including "specialties," "systems," "structure," "finishes," "accessories," "furnishings," "special construction," and similar terms, which are self-explanatory and have recognized meanings in the construction industry.

B. Substitutions: The requirements for substitutions do not apply to specified CONTRACTOR options on products and construction methods. Revisions to Contract Documents, where requested by OWNER or ENGINEER, are "change" not "substitutions." CONTRACTOR's determination of and compliance with governing regulations and orders issued by governing authorities do not constitute "substitutions," and do not constitute a basis for Change Orders, except as provided for in Contract Documents. Otherwise, CONTRACTOR's requests for changes in products, materials and methods of construction required by Contract Documents are considered requests for "substitutions," and are subject to requirements hereof.

C. Standards: Refer to Section 01090, "Definitions and Standards" for applicability of industry standards to products of Project, and for acronyms used in text of specification sections.

1.02 QUALITY ASSURANCE:

A. Source Limitations: To the greatest extent possible provide products, materials and equipment of a singular generic kind and from a single source.

B. Compatibility: Select products and materials which are compatible with other products and materials already selected and are suitable for proper performance in the completed Work.

1.03 REQUESTS FOR SUBSTITUTIONS: Submit 6 copies, fully identified for product or method being replaced by substitution (including related Specification Section and Drawing number(s)) and fully documented to show compliance with requirements for substitutions. Include product data/drawings, description of methods, samples where applicable, CONTRACTOR's detailed comparison of significant qualities between specified item and proposed substitution, statement of effect on construction time and coordination with other affected Work, cost information or proposal, and CONTRACTOR's statement to the effect that proposed substitution will result in overall Work equal-to-or-better-than Work originally indicated.

1.04 PRODUCT DELIVERY-STORAGE-HANDLING: Deliver, handle and store products in accordance with manufacturer's recommendations and by methods and means which will prevent damage, deterioration, and loss including theft. Control delivery schedules to minimize long-term storage of products at site and overcrowding of construction spaces.

1.05 WARRANTIES (GUARANTEES):

A. Categories of Specific Warranties: Warranties on the Work include but are not necessarily limited to those of General Conditions, and specific warranties related to individual components of the Work:

B. Specified Product Warranty: A warranty which is required by Contract Documents, to be provided for a manufactured product incorporated into the Work regardless of whether manufacturer has published a similar warranty.

C. Start of Warranties: Warranties are to commence on date of Substantial Completion, unless noted otherwise.

D. Reinstatement of Warranty Period: Except as otherwise indicated, when Work covered by a product warranty has failed and has been corrected by replacement or restoration, reinstate warranty by written endorsement for a period of time equal to original warranty period of time, starting on date of acceptance of replaced or restored Work.

E. Replacement Cost Obligations: Costs of replacing or restoring failing warrantied units or products is CONTRACTOR's obligation, without regard for whether OWNER has already benefited from use through a portion of anticipated useful service lives.

PART 2 - PRODUCTS

2.01 GENERAL PRODUCT COMPLIANCES:

A. General: The compliance requirements, for individual products as indicated in Contract Documents, are multiple in nature and may include generic, descriptive, performance, prescriptive, compliance with standards, compliance with codes, conformance with graphic details and other similar forms and methods of indicating requirements, all of which must be complied with.

B. Procedures for Selecting Products: CONTRACTOR's options for selecting products are limited by Contract Documents requirements, and governing regulations, and are not controlled by industry traditions or procedures experienced by CONTRACTOR on previous construction projects. Required procedures include, but are not necessarily limited to, the following for various indicated methods of specifying:

1. "Or Equal": See General Conditions and Supplementary Conditions.

2. "Named", is defined to mean manufacturer's name for product, as recorded in published product literature, of latest issue as of date of Contract Documents. Refer requests to use products of a later (or earlier) model to ENGINEER for acceptance before proceeding.

3. Standards, Codes and Regulations: Where compliance with an imposed standard, code or regulation is required, selection from among products which comply with requirements including those standards, codes and regulations, is CONTRACTOR's

option.

4. Performance Requirements: Provide products which comply with specific performances indicated, and which are recommended by manufacturer (in published product literature or by individual certification) for application indicated. Overall performance of a product is implied where product is specified with only certain specific performance requirements.

5. Prescriptive Requirements: Provide products which have been produced in accordance with prescriptive requirements, using specified ingredients and components, and complying with specified requirements for mixing, fabricating, curing, finishing, testing and similar operations in manufacturing process.

2.02 SUBSTITUTIONS:

A. General: See General Conditions and Supplementary Conditions.

2.03 GENERAL PRODUCT REQUIREMENTS:

A. General: Provide products which comply with requirements, and which are undamaged and unused at time of installation, and which are complete with accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for intended use and effect.

B. Standard Products: Where available, provide standard products of types which have been produced and used previously and successfully on other projects and in similar applications.

C. Continued Availability: Where additional amounts of a product, by nature of its application, are likely to be needed by OWNER at a later date for maintenance and repair or replacement Work, provide a standard, domestically produced product which is likely to be available to OWNER at such later date.

PART 3 - EXECUTION (not applicable)

*** END OF SECTION ***

SECTION 01625 - ENVIRONMENTAL PROTECTION

PART 1 - GENERAL

1.01 DESCRIPTION

A. The Work under this section shall consist of all environmental mitigation measures designed to minimize various types of pollution and resource area contamination, including airborne dust, equipment noise, drainage and soil erosion, alteration/damaging or dumping hazardous waste or rubbish in resource areas. The Contractor shall furnish all labor, materials, tools and equipment and perform all work required for the prevention of environmental pollution resulting from its construction operations.

B. The requirements set forth in this section are intended to minimize the adverse impacts on populated and cross-country areas, stream crossings, coastal areas, beaches, flood plains, marshes, wetlands, wild life and marine life due to construction activities in and adjacent to all resource areas.

C. All work shall be in accordance with the applicable Local, State and Federal laws and regulations and the Quincy Conservation Commission's Order of Conditions.

1.02 NOTIFICATION

A. The Engineer will notify the Contractor in writing of any non-compliance with the foregoing provisions. The Contractor shall, after receipt of such notice, immediately take corrective action. In case of non-compliance, the Engineer will order stoppage of all or part of the work until satisfactorily corrective action has been taken. No claim for an extension of time or for extra costs or loss incurred by the Contractor as a result of time lost due to any stop orders shall be made unless it was later determined that the Contractor was in compliance.

B. Prior to commencement of the Work, the Contractor shall meet with the Engineer to develop mutual understandings relative to compliance of the environmental protection program.

1.03 CONSTRUCTION ACTIVITY

A. Insofar as possible, the Contractor shall confine all activities, including clearing, grubbing, excavation and construction of works, to those areas defined by the plans and specifications. All land resources within the project boundaries and outside the limits of permanent work performed under this contract shall be preserved in their present condition or if damaged, shall be restored to their original condition after completion of construction.

1.04 PROTECTION OF WATER RESOURCES

A. The Contractor shall not pollute streams, lakes or reservoirs, wetlands and beaches with fuels, oils, bitumens, calcium chloride, acids or harmful materials. It is the Contractor's responsibility to comply with all applicable Federal, State, County and Municipal laws regarding pollution of rivers/streams. Special measures should be taken to insure against spillage of any pollutants into public waters.

1.05 PROTECTION OF WETLANDS

A. The Contractor shall make every effort to minimize disturbances within the areas designated as wetlands. Easement widths shall be limited to the widths shown on the drawings. The Contractor shall make sure that wetlands are restored to the conditions existing prior to construction.

B. The Contractor shall carefully remove and stockpile the top 24-inches of soil. This topsoil material shall be used as backfill for the trench excavation top layer. The elevation of the trench is to be restored to the

pre-construction elevations wherever disturbed by the Contractor.

C. A trench box and/or sheeting or bracing shall be used to support the excavation in wetlands.

D. Excavated materials shall not be permanently or temporarily stored in wetlands. Temporary storage areas for excavated materials shall be as directed by the Engineer.

E. The Contractor shall be required to utilize timber or rubber matting to support equipment in wetlands. The timber or rubber matting shall be constructed in such a way so that it is capable of supporting all equipment loads necessary to complete the construction work. The timber or rubber matting shall be constructed of materials and placed so that, once removed, the material below the matting is not unduly disturbed, mixed or compacted in such a way that would adversely effect the recovery of the existing plant life.

1.06 PROTECTION OF EXPOSED AREAS

A. The Contractor shall limit the area of land that is exposed and free from vegetation during construction. In areas where the period of exposure will be greater than two (2) months, temporary vegetation, mulching or other protective measures shall be provided as specified.

B. Where temporary cover crop will be used, the Contractor shall insure that materials used for temporary vegetation are adaptive to the sediment control. Materials to be used for temporary vegetation shall be approved by the Engineer.

C. Loaming and seeding or mulching of cross-country areas shall take place as soon after completion of work in that area as practicable. This shall be considered part of the clean-up work, and full payment for the work will not be made until it has been completed.

1.07 LOCATION OF STORAGE AREAS

A. No excavated materials or materials to be used in backfill operations shall be stored within a minimum distance of fifty (50) feet of any watercourse or any drainage facility.

B. No storage of equipment or materials shall be permitted in wetlands.

C. In cross-country areas when excavating in wetland or flood plain, where no temporary diversion structure is required, the excavated material shall be placed on the uphill side of the trench so that the trench serves as a barrier between the excavated material and the wetland or flood plain.

1.08 HAY BALES AND SILT FENCES

A. Adequate measures for erosion and sediment control such as the placement of baled hay or straw around the downstream perimeter of stockpiles shall be employed to protect downstream areas. The bales of densely packed hay with tightly bound biodegradable ties shall be installed as shown on the drawings . The bales shall be staked to prevent overturning, floatation, or displacement. All sediment deposited behind the bales of hay and silt fences shall be removed periodically.

B. Where shown on the drawings or as directed by the Engineer, the Contractor shall erect and maintain a temporary silt fence. In wetlands and other resource areas, the Contractor shall line the limits of the construction easement with silt fences. The silt fence shall be used specifically to contain sediment from runoff water and to minimize environmental damage caused by construction.

C. The silt fence shall consist of a 3-foot wide continuous length sediment control fabric, attached to a 25-foot long continuous support netting, and stapled to pre-weathered oak posts installed a shown on the

drawings. The oak posts shall be 2-inches by 2-inches by 5-feet and shall be tapered. The support netting shall be industrial strength polypropylene.

D. The sediment control fabric should conform to the following properties:

1.	Minimum Weight of 2.5 oz/sy	(ASTM D-3776-79).
2.	Minimum Thickness of 17 mils.	(ASTM D-1777-79).
3.	Minimum tear strength of 65 lbs.	(ASTM D-1117-80).
4.	Minimum burst strength of 210 psi	(ASTM D-3786-80).
5.	Minimum coefficient of permeability of	0.0009 cm/sec.
6.	Equivalent opening size (EOS)	20. (U.S. Standard Sieve)
7.	Water flow rate of (QUITG-15)	40 gal/min/sf.

1.09 SOIL EROSION AND SEDIMENTATION CONTROLS

A. The Contractor shall take effective measures during construction to minimize soil erosion and silting/sedimentation in the vicinity of construction areas.

B. The Contractor shall not cause direct or indirect discharge of pollutants such as silt, clay, fuel oils, lubricants, cleaning agents, bitumen's, calcium chloride or any other material that may be hazardous or detrimental to watersheds, lakes, wetlands, beaches, marshes, streams, and public water, sewer and drain systems.

C. Site generated drainage runoff whether due to storm run-off or the Contractor's dewatering and other operations shall not be allowed to shed on to the abutting properties.

D. To reduce uncontrolled soil erosion, the site drainage runoff shall be conveyed through conduits, swales, gravel drains, etc., and disposed of in areas approved by the City.

E. Site runoffs shall not be disposed of until silt, sediment and other deleterious materials have been removed through the use of hay bales, silt fences and other methods acceptable to the Engineer.

F. During the course of construction, the Contractor shall, when directed, dispose, remove, relocate, or replace the hay bales and silt fences as directed by the Engineer. The Contractor shall also be fully responsible for removal and disposal of the collected sediment and debris behind the hay bales and silt fences as directed by the Engineer. The hay bales and silt fences shall remain in place until directed by the Engineer.

G. Erosion control measures used for public water supply or fist culture must be adequate to ensure that turbidity in the receiving water will not be increased more than 10 standard turbidity units (s.t.u.) or as otherwise required by the State or other controlling body. In surface water used for other purposes, the turbidity must not exceed 25 s.t.u., unless permitted otherwise.

1.10 WATER HANDLING

A. All water discharges from the Contractor's dewatering and/or water handling operations shall be filtered prior to being discharged into a receiving water.

B. The water may be filtered through hay bales, a vegetative filter strip, or a vegetative channel. Discharge flow rate through these media shall not exceed one (1'/sec) foot per second. The sediment shall be cleared from the channel periodically.

C. If water from dewatering operations is discharged over non-vegetated land, impermeable plastic sheeting must be laid over non-vegetated areas and sediment traps constructed at strategic locations to catch sediment.

D. Any water discharged from the Contractor's operations must be at least equal in quality to the receiving water. If the quality of the water being discharged is unacceptable, the Contractor shall employ whatever measures necessary to provide an acceptable water quality.

E. All existing drainage facilities including, but not limited to, brooks, streams, canals, channels, ditches, culverts, catch basins, and drainage piping shall be adequately safeguarded so as not to impede drainage or to cause siltation of downstream areas. If the Contractor damages or impairs any of the aforesaid drainage facilities, these shall be repaired immediately.

F. All drainage appurtenances shall be designed to remove suspended solids, oils and other such material. Baled hay or straw must also be used to trap sediment and prevent clogging of drainage systems.

G. If interruption of existing drainage flows is necessary, the Contractor shall provide, maintain, and operate all temporary facilities such as dams, pumping equipment and conduits etc. required to by-pass flows past the construction area.

1.11 DUST CONTROL

A. During the progress of the work, the Contractor shall conduct operations to maintain a dust free environment. Measures to control dust may include sweeping and applying water to streets, as necessary, to minimize the air borne dust.

B. At no time shall calcium chloride or other chemicals be used for dust control.

1.12 NOISE LEVEL REQUIREMENTS

A. Equipment utilized by the Contractor shall conform to the General Services Administration Construction Noise Specifications, effective as of January 1, 1975, for stationary equipment. Equipment must not exceed 75 Db (A) when measured at a distance of 50 feet from the noise source. The Contractor shall construct sound enclosures or utilize other noise reduction techniques if the equipment does not meet the noise level requirements.

1.13 CLEAN AIR AND WATER POLLUTION CONTROL ACTS

A. The Contractor is subject to the requirements of the Clean Air Act, as amended, 42 U.S.C. 1857 et.seg; the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et.seg; and the regulations of the Environmental Protection Agency with respect thereto, at CFR Part 15, as amended from time to time.

1. The Contractor agrees that any facility to be utilized in the performance of any non-exempt contract or sub-contract shall not be listed on the List of Violating Facilities issued by the Environmental Protection Agency (EPA) pursuant to 40CFR 15.20.

2. The Contractor agrees to comply with all the requirements of Section 114 of the Clean Air Act, as amended (42 U.S.C. 1857 c8) and Section 308 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1318), relating to inspection, monitoring, entry, reports, and information, as well as all regulation and guidelines issued thereunder.

PART 2 – PRODUCTS (not applicable)

PART 3 – EXECUTION (not applicable)

*** END OF SECTION ***

SECTION 01700 - PROJECT CLOSEOUT

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS: Project closeout is defined to include general requirements near end of Contract Time in preparation for final acceptance, final payment, normal termination of Contract, occupancy by OWNER and similar actions evidencing completion of the Work. Time of closeout is directly related to "Substantial Completion", and therefore may be either a single time period for the entire Work or a series of time periods for individual parts of the Work which have been certified as Substantially Complete at different dates. That time variation (if any) shall be applicable to other provisions of this section.

1.02 PREREQUISITES TO SUBSTANTIAL COMPLETION:

A. General: Prior to requesting ENGINEER's inspection for certification of Substantial Completion (for either entire Work or portions thereof), complete the following and list known exceptions in request:

1. In progress payment request, coincident with or first following date claimed, show either 100% completion for portion of the Work claimed as "Substantially Complete", or list incomplete items, value of incompletion, and reasons for being incomplete.

2. Include supporting documentation for completion as indicated in these Contract Documents.

3. Advise OWNER of pending insurance change-over requirements.

4. Submit specific warranties, workmanship/maintenance bonds, software licenses, maintenance agreements, final certifications and similar documents as required.

5. Complete testing of equipment/software and supporting documentation of tests.

6. Partial waivers of lien from all Subcontractor's and Suppliers.

B. Inspection Procedures: Upon receipt of CONTRACTOR's request, ENGINEER will proceed with inspection and advise CONTRACTOR of prerequisites not fulfilled or prepare certificate of Substantial Completion. If work must be performed prior to issuance of certificate, ENGINEER will repeat inspection when requested, to assure that the Work has been substantially completed.

1.03 PREREQUISITES TO FINAL ACCEPTANCE:

A. General: Prior to requesting ENGINEER's final inspection for certification of final acceptance and final payment, as required by General Conditions, complete the following and list known exceptions (if any) in request:

1. Submit final payment request with final releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.

2. Submit updated final statement, accounting for final changes to Contract Price.

3. Submit copy of ENGINEER's final punch-list of itemized work to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance, endorsed and dated by ENGINEER.

4. Submit record drawings, maintenance manuals, final photographs and all other record documents.

5. Submit final liquidated damages settlement statement, acceptable to OWNER.

6. Revise and submit evidence of final, continuing insurance coverage complying with insurance requirements.

7. Submit final waivers of lien from all Subcontractor's and Suppliers.

B. Procedure: Upon receipt of CONTRACTOR's request for final acceptance and payment, ENGINEER will either prepare certificate of final acceptance or advise CONTRACTOR of Work not completed or obligations not fulfilled, as required for final acceptance. If necessary, procedure will be repeated.

1.04 RECORD DOCUMENT SUBMITTALS:

A. General: Specific requirements for record documents are indicated in individual sections of these Specifications. Do not use record documents for construction purposes. Provide access to record documents for ENGINEER's reference during normal working hours.

B. Record Drawings: Maintain a white-print set (blue-line or black-line) of Contract Drawings and Shop Drawings in clean, undamaged condition, with mark-up of actual installations which vary substantially from the Work as originally shown. Mark whichever drawing is most capable of showing "field" condition fully and accurately; however, where Shop Drawings are used for mark-up, record a cross-reference at corresponding location on working drawings. Mark with red erasable pencil. Give particular attention to concealed work, which would be difficult to measure and record at a later date. Note related Change-Order numbers where applicable. Organize Record Drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on cover of each set.

C. Record Specifications: Maintain one copy of Specifications, including Addenda, Change Orders and similar modifications issued in printed form during construction, and mark-up variations (of substance) in actual Work in comparison with text of Specifications and modifications as issued. Give particular attention to substitutions, selection of options, and similar information on work where it is concealed or cannot otherwise be readily discerned at a later date. Note related Record Drawing information and product data, where applicable.

D. Record Product Data: Maintain one copy of each product data submittal, and mark-up significant variations in actual Work in comparison with submitted information. Include both variations in product as delivered to site, and variations from manufacturer's instructions and recommendations for installation. Give particular attention to concealed products and portions of the Work which cannot otherwise be readily discerned at a later date. Note related Change Orders and mark-up of Record Drawings and Specifications.

E. Miscellaneous Record Submittals: Refer to other Sections of these Specifications for requirements of miscellaneous record- keeping and submittals in connection with actual performance of the Work. Immediately prior to date(s) of final completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for continued use and reference.

1.05 BALANCING CHANGE ORDER:

A. General: Contractor shall execute a balancing change order to closeout the contract. Contractor's time to execute balancing change order is considered incidental to contract.

PART 2 - PRODUCTS (not applicable)

PART 3 - EXECUTION

3.01 CLOSEOUT PROCEDURES:

A. General: Cleaning for specific items of Work shall be performed as specified in technical Specifications. General cleaning during progress of the Work is specified in Section 01400. Additional final clean-up requirements are as follows:

1. Remove signs which are not required as permanent signs.

2. Clean project site, including landscape development areas, of litter and foreign substances. Sweep paved areas to a broom-clean condition; remove stains, petro-chemical spills and other foreign deposits. Rake grounds which are neither planted nor paved, to a smooth, even-textured surface.

B. Removal of Protection: Except as otherwise requested by ENGINEER, remove temporary protection devices and facilities which were installed during course of the Work.

C. Disposal of Wastes: Do not burn waste materials at site, or bury debris or excess materials on OWNER's property, or discharge volatile or other harmful or dangerous materials into drainage systems. Remove waste materials from site and dispose of in a lawful manner.

*** END OF SECTION ***

DIVISION TWO INDEX
TECHNICAL SPECIFICATIONS

Section No.	Description/Title	Pay Item No.
02100	Site Preparation	101.2
02105	Tree Stump Removal	102.09
	Tree Root System Removal	102.19
	Tree Removal (Diameter under 24 inches)	103.1
02120	Unclassified Excavation	120.1
02130	Bituminous Concrete Excavation By Cold Planing	129.
02140	Drainage Structure Removed	146.
	Sanitary Sewer Manhole Removed	146.1
02150	Gravel Borrow for Sidewalks	151.22
02170	Fine Grading & Compaction of Sub-Grade/Sub-Base Areas	170.
02210	Catch Basins	201.5
	Drain Manholes	202.5
	Sanitary Sewer Manholes	202.7
02220	Drainage Structure, Adjusted	220.
	Sanitary Structure, Adjusted	220.7
	Drainage Structure Remodeled	220.5
	Replacement Frame w/ Grate or Cover	222.
02240	12-Inch Reinforced Concrete Pipe (Class IV)	243.12
	8-Inch PVC Sanitary Pipe	248.8
	10-Inch PVC Drainage Pipe	248.10
02350	Gate Box Adjusted	358.
	Hydrant – Remove and Reset	376.2
	Service Box	381.
02400	Dense Graded Crushed Stone	402.
02410	Gravel for Base Course	405.
02420	Class I Bituminous Concrete Type I-1 (Base Course)	420.
02460	Class I Bituminous Concrete Pavement, Type I-1, for Top Course	460.
	Class I Bituminous Concrete Pavement, Type I-1, for Leveling Course	460.5
	Bitumen for Tack/Prime Coat	463.
02470	Hot Mix Asphalt For Misc. Use	472.

Section No.	Description/Title	Pay Item No.
02505	Granite Curb-Type VA-3 Straight	503.
	Granite Curb-Type VA-3 Curved	503.1
	Granite Curb Corner	517.
02580	Curb Removed & Reset	580.
	Curb Corner Removed & Reset	583.
02590	Granite Curb Removed & Stacked	590.
02705	Cement Concrete Sidewalk	701.
	Cement Concrete at Driveway	701.1
	Cement Concrete Wheelchair Ramps	701.31
02710	Inlaid Thermoplastic Asphalt Pavement Marking System	702.3
02720	Trash Receptacle Removed and Reset	707.25
	Mail Box Removed and Reset	715.1
02740	Mobilization/Demobilization	748.
02750	Loam Borrow	751.
02755	Structural Soil Mix	755.
02765	Seeding	765.
02800	2-Inch Electrical Conduit Type NM – Plastic – (UL) (Single)	804.2
	3-Inch Electrical Conduit Type NM – Plastic – (UL) (Single)	804.3
	3-Inch Electrical Conduit Type NM – Plastic – (UL) (Double)	804.32
02811	Pull Box 12 Inches X 12 Inches – SD 2.031	811.31
	Pull Box 12 Inches X 24 Inches	811.324
02815	Mast Arm Footing Cost Adjustment	815.981
02816	Traffic Control Signal Reconstruction	816.01
	Flashing Warning Beacon Removed and Stacked	816.80
02830	Warning, Regulatory Signs and Route Markers (Aluminum) – Type A	832.1
02840	Sign Support (Not Guide) and Route Marker -Steel	847.1

Section No.	Description/Title	Pay Item No.
02850	Safety Controls for Construction Operations	851.
	Safety Signing For Construction Operations	852.
	Portable Breakaway Barricade Type III	853.1
	Reflectorized Drum	859.
	Reflectorized Drum with Flasher	859.1
	Temporary Pavement Markings – 4 Inch (Painted)	854.014
	Temporary Pavement Markings – 12 Inch (Painted)	854.017
	Temporary Pavement Markings – 4 Inch (Removable Tape)	854.034
	Pavement Marking Removal	854.1
02860	4-in. Reflectorized White Line (Thermoplastic)	866.04
	12-in. Reflectorized White Line (Thermoplastic)	866.12
	4-in. Reflectorized Yellow Line (Thermoplastic)	867.04
02870	Street Name Sign	874.
	King Square Monument Sign Removed and Reset	874.211
	Daley Square Monument Sign Removed and Reset	874.212
	Davis Square Monument Sign Removed and Reset	874.213
	Miscellaneous Signs Removed and Reset	874.45
	Miscellaneous Signs Removed and Stacked	874.5
02905	Concrete for Miscellaneous Uses	904.
02910	Bench	910.
	Trash Receptacle	911.
	Landscaped Planter	913.
	Landscaped Treeway (3’x24’)	913.1
	Landscaped Treeway (3’x12’)	913.2
02990	Traffic Police Details	999.001

*** END OF SECTION ***

SITE PREPARATION

The work to be done under this item shall conform to the relevant provisions of Section 100 of the Standard Specifications, all requirements of this section and the work as shown on the drawings.

The Contractor shall furnish all labor, materials, tools and equipment necessary to perform all work to prepare and clear the site for construction work as shown on the drawings or as directed by the Engineer.

The work shall include, but not necessarily be limited to the following:

< Clearing the site of construction debris and waste materials, including grass, bushes, small trees (6" caliper or less), broken concrete, pipes, lumber and steel pieces, rags and plastics, etc., within the limits of work, as shown on the drawings or as directed.

< Removal and stacking of all fencing, lamp posts, letter boxes, signs and poles and other usable materials to be reinstalled as originally existed after the completion of the construction work.

< Demolition and removal of existing stairs/steps, walkways, fencing and walls, as necessary to construct the new road/sidewalk, curbing, grass borders and landscaping, etc.

< Removal and stockpiling all top soil plants, curb stones, cobblestones, and all utility castings and other materials for reuse on the project, as shown or as directed by the Engineer.

< Removal and disposal of all waste materials off site.

All recovered materials to be reused on the project shall be acceptable to the Engineer and properly stockpiled and guarded against damage or deterioration. Unsatisfactory materials shall not be incorporated into the work.

All waste or surplus material collected in the course of the clearing, grubbing, stripping, demolition, alteration and other site preparation operations shall be disposed of in a satisfactory manner at the Contractor's expense to an approved site. **Burying is not allowed**. All waste material shall be disposed of immediately and shall not be left until the final site clean-up.

The Contractor's attention is directed towards the requirements of Division I and II of the specifications in relation to protection, relocation, replacement and repair/restoration of property, existing structures, utilities and appurtenances.

The Contractor shall execute the site clearing, demolition, replacement, and restoration work to ensure against damage or injury to buildings, occupants, and adjacent property from falling debris or other causes. Free and safe passage to and from the site shall be maintained at all times.

The closing or blocking of walks, passageways, and roads adjacent to the site shall not be permitted and all operations shall be conducted with minimum interference to traffic. The Contractor shall erect and maintain all necessary barriers, lights, plates, signs, flashers and other devices for the safety of vehicular and pedestrian traffic.

All clearing and grubbing shall be as indicated on the drawings, as specified herein or as directed.

The Contractor shall remove any and all existing site obstructions and debris, cut trees, bushes, root stumps (6-inch caliper and less), waste stones, concrete, bituminous materials, wood, lumber, metal, plastic, and other unsuitable materials above, at or below grade that may interfere with or obstruct the new work, whether or not they are shown on the drawings.

The Contractor shall not cut or injure any trees or other vegetation outside the limits of the work area and shall guard against like action by its employees. No trees and shrubs shall be cut, removed, destroyed or trimmed unless specifically marked or permitted.

All demolitions, removal and alterations to the existing structures, appurtenances, utility pipes, castings, fences, walkways, posts, stairs and other physical features shall be accomplished without damaging the integrity of the

remaining structures, appurtenances and equipment.

Cutting of openings in existing masonry work shall be done in a manner to provide suitable bond, and clean, square and plumb openings for the installation of new work. The cut surfaces shall be thoroughly cleaned of all loosened materials.

All workmanship and materials for new construction and alterations shall be as specified. Materials used for repair and/or restoration work shall match the existing adjacent surfaces in finish and texture as closely as practical. All joints between new and existing work shall be made inconspicuous.

Unless noted on the drawings or specifically directed by the Engineer, all abandoned underground piping shall be left in place, and all castings shall either be removed or at least cut a minimum 12-inches below the finished surface and the area backfilled. Whenever a section of piping needs to be removed for whatever reasons, it shall either be cut to the nearest solid support or appropriate new supports shall be provided and each of the remaining ends shall be capped before backfilling.

All items such as fences, lamp posts, letter boxes, masonry boundary walls, City signs, poles, bollards, curb stones, markers, trees, bushes, grassed areas, walkways, stairs/steps, benches, outside lighting and all other amenities and physical features damages, dislocated and/or dismantled by the Contractor shall be replaced or restored to conditions that existed prior to the start of construction. All direct and indirect costs associated with the replacement/restoration work shall be borne by the Contractor.

Payment for work under **Item 101.2: Site Preparation** shall be at the contract lump sum price, complete and accepted by the Engineer. This price shall be full compensation for all labor, materials, equipment and tools required to complete all clearing, demolition, dismantling, replacement/restoration work, stacking of reusable and disposal of all waste/surplus materials, and all else incidental thereto, all as specified in this sections, as shown on the drawings or as directed by the Engineer. There shall be no progress payments for work under this item.

For the purpose of payment under this item, all costs related to construction of new improvements or replacement/restoration of items of work which were not demolished/dismantled due to the Contractor's operations or for its convenience shall be paid for separately under their respective pay items. The measurement and payment provisions listed under Division One, Section 01025 shall supplement the above payment provisions, as applicable.

*** END OF SECTION ***

TREE STUMP REMOVED
TREE ROOT SYSTEM REMOVED

The work to be done under this item shall conform to the relevant provisions of Sections 100 of the Standard Specifications, all the requirements of this section and the work as shown on the drawings.

The Contractor shall furnish all labor, materials, tools and equipment necessary to cut existing trees and expose by excavation, remove and/or cut, as required, the tree stumps and root systems to prepare the site for construction work as shown on the drawings and as directed. The work shall also include removal and disposal of tree stumps, roots, organic matter and the other unsuitable materials resulting from the operation.

The Contractor shall comply with the provisions of Division's One and Two of this specification as related to protection, relocation, replacement and restoration of property, and existing utilities and appurtenances.

All work in the proximity of the existing structures, appurtenances, pipes, stairs, and other physical features shall be accomplished without damaging the integrity of remaining structures, appurtenances and equipment.

Such items that are damaged shall be either repaired or replaced at the Contractor's expense to a condition at least equal to that which existed prior to the start of his work.

All workmanship and materials for new construction and alterations shall be as specified. Materials used for repair and/or restoration work shall match the existing adjacent surfaces in finish and texture as closely as practical, and joints between new and existing work shall be made inconspicuous.

Unless directed otherwise by the Engineer, excavation required to expose the tree stump and root system shall comply with the following:

- Excavation around the tree not to exceed the width of the sidewalk.

- The depth of excavation for stump removal not to exceed 5 feet.

- The depth of excavation for removal of a tree root system not to exceed 2 feet.

All root system encountered within the limits of sidewalk width as determined by the Engineer, shall be cut clean and removed. The cut surfaces of the remaining detached roots shall be painted with stump rot. The tree roots which are still attached to the trunk shall be cleaned and painted with two coats of an approved chemical root guard to protect the tree from later damage.

All waste or surplus materials resulting from the tree, tree stump, tree root system removal and the associated operations shall be disposed of in a satisfactory manner at the Contractor's expense. The disposal of all such materials shall be carried out immediately after removal of the material and shall not be left until the final period of clean up.

All existing tree grates in good condition and not needed for the project shall be transported and carefully stacked at the DPW yard or otherwise disposed of by the contractor at no additional cost to the City.

Payment for work under **Item 102.09: Tree Stump Removed and Item 102.19: Tree Root System Removed** shall be at the contract unit price, per each tree location, where work is satisfactorily completed and accepted by the Engineer, which price shall be full compensation for all labor, materials and equipment required to complete all work items including excavations, removal of stumps or root systems, replacement/restoration of damaged areas, removal and staking of grates, and disposal of waste/surplus materials as specified in this section and all else incidental thereto.

All cost related to back fill materials and reconstruction of sidewalk and the associated work shall be paid for

separately under their respective pay items.

The measurement and payment provisions listed under Division One, Section 01025 shall supplement the above payment provisions, as applicable.

*** END OF SECTION ***

UNCLASSIFIED EXCAVATION

The work to be done under this Item shall conform to the relevant provisions of Section 120 of the Standard Specifications and the following:

The work shall consist of the excavation and satisfactory disposal of all materials encountered within the limits of the contract except for those materials specifically classified and paid for under other items of this contract.

The work includes the stripping and/or ordinary excavation of existing bituminous or cement concrete pavements, soils, foundations, bituminous or cement concrete curbs, bituminous or cement concrete sidewalks, grassed areas, except for those materials specifically classified and paid for under other items of this contract.

The edges of all excavations to be made in existing pavements and sidewalks shall be saw-cut neatly along either a straight line or design curved line as shown in the drawings. Ragged, uneven edges are not acceptable.

The existing pavement shall be saw cut through its full depth, or to the elevation of the abutting proposed pavement subgrade, whichever is lesser, at all joints between existing and proposed pavements, and at all utility trenches through existing pavement to remain, to provide a uniform, vertical surface for the proposed pavement joint with the existing pavement.

Saw cut edges that become broken, ragged or undermined as a result of the Contractor's operations shall be edged neatly with a minimum disturbance to remaining pavements or sidewalks prior to the placement of abutting proposed pavement at no additional cost.

In areas where an existing concrete sidewalk abuts a building, wall or storefront, and the sidewalk is to be reconstructed or removed, the existing sidewalk shall be saw cut a minimum of six (6) inches from the building wall or storefront unless otherwise directed by the Engineer.

Saw cut surfaces shall be sprayed or painted with a uniform thin coat of RS-1 asphalt emulsion immediately before placement of hot mix asphalt material against the surface.

The Contractor shall perform all excavations in such a manner as to maintain slopes longitudinally and laterally and to ensure proper and continuous drainage at all times. Sidewalk and roadway gutter grades at driveways and side street intersections are to be field adjusted to be consistent with the existing drainage pattern and shall provide for an appropriate transition between the new and the existing (side streets and driveways) pavement surfaces at intersections.

The excavation must also avoid damage to adjacent areas, facilities and appurtenances.

If during the course of the excavation, the Contractor encounters cobblestones, the excavated cobblestone shall remain the property of the City of Quincy. The entire excavated cobblestone shall be carefully stacked at the DPW Yard at no additional cost to the City. All other waste or unsuitable materials (bituminous/cement concrete, debris, rails and ties, etc) resulting from the contractor’s excavation (common excavation, cold planning, reclamation, etc.) and/or the excavated materials declared surplus by the Engineer shall be disposed of by the Contractor at no additional cost to the City.

Also included under this item is the removal of any utility poles, fences, bushes, shrubs and vegetation. This work shall be considered incidental to Item 120.1 with no additional compensation. The relocation of overhead utilities from the poles to be removed shall be the responsibility of the respective utility company, unless noted otherwise on the plans.

Saw cutting required for the excavation of pavements, sidewalks, drainage, traffic signal conduit and/or lighting conduit shall be considered incidental to Item 120.1 with no additional compensation.

Payment for **Item 120.1: Unclassified Excavation** shall be at the contract unit price, per Cubic Yard. This price

shall be full compensation for all labor, materials, tools, equipment and incidentals including excavation to lines and grades, all construction and public safety measures and dewatering operations where required or necessary to complete the work as specified or as shown on the drawings.

The measurement and payment provisions listed under Division One, Section 01025 shall supplement the above payment provisions, as applicable.

*** END OF SECTION ***

BITUMINOUS CONCRETE EXCAVATION BY COLD PLANING

The work to be done under this **i**tem shall conform to the relevant provisions of Section 120 of the Standard Specifications and the following:

The work under this item shall consist of cold planing and scarifying of bituminous concrete surfaces to depths and limits indicated on the drawings or as directed by the Engineer. The Contractor shall be responsible for the satisfactory disposal of all waste/surplus materials resulting from the above operations to an approved site at no additional cost.

The cold planing depth shall be the depth required to provide a minimum 2-inch Bituminous Concrete Pavement Top Course to the proposed finish grades indicated on the Plans or as directed by the Engineer. The approximate depths of bituminous materials to be removed by cold planing would generally vary from 2 to 4 inches. However, depths of cuts in certain sections could be 5-inches or more. The Contractor shall comply with the following criteria for cold planing depth and the subsequent placement of bituminous concrete pavement courses.

All cuts must be compatible and consistent with the existing road longitudinal profile, cross sections and the existing drainage patterns. Unless indicated on the drawings, all actual depths of cut along the various roadway sections shall be agreed with the Engineer before cold planing operations are started.

Roadway gutter grades at driveways and side street intersections are to be field adjusted to be consistent with the existing roadway drainage pattern and shall provide for an appropriate transition between the new and existing (side streets and driveways) pavement surfaces at the intersections.

Payment for work under **Item 129.: Bituminous Concrete Excavation By Cold Planing** shall be at the contract unit price, per Square Yard, as accepted by the Engineer. This price shall be full compensation for all labor, materials, tools, equipment including removal of the bituminous concrete pavements with occasional portions of cement concrete by cold planing to lines and grades, installation and enforcement of all public safety measures, disposal of all waste, unsuitable and/or surplus materials and all incidental work necessary to complete the work as specified or as directed.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions as applicable.

*** END OF SECTION ***

DRAINAGE STRUCTURE REMOVED
SANITARY SEWER MANHOLE REMOVED

The work to be done under these **Items 146. and 146.1** shall conform to the relevant provisions of Section 140 of the Standard Specifications and the following:

This work shall consist of removal of drainage and sanitary structures identified on the plans or directed otherwise.

The castings (frames, covers and grates) shall be removed and staked. Castings in good condition shall be transported and staked carefully at the DPW yard. Casting deemed by the Engineer as not serviceable shall be disposed of by the Contractor at no additional cost to the City.

The Contractor shall plug all inlets and outlets and removal all masonry and concrete.

The Contractor shall fill the cavity with Gravel for Base Course.

Payment for work under **Item 146: Drainage Structure Removed and Item 146.1: Sanitary Structure Removed** shall be at the contract unit price, per Each, for the respective Items, which price shall be full compensation for all labor, materials, and equipment necessary to complete the work, including removing and staking castings, excavation, backfill, compaction, and plugs.

Gravel for backfill will not be paid for separately.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions as applicable.

*** END OF SECTION ***

GRAVEL BORROW FOR SIDEWALKS

The work under this item shall conform to the relevant provisions of Section 150 of the Standard Specifications and the following:

This work shall consist of furnishing and placing ordinary borrow in accordance with the details shown on the contract drawings, as specified in these specifications, and as directed by the Engineer. Gravel borrow shall consist of hard durable stone and coarse sand free from loam and clay, well graded and containing no stone having any dimensions greater than two (2) inches (Type C), as per Section M1.03.0. The gravel borrow shall conform to the following requirements:

Sieve	**% Passing**
1/2"	**50-85**
#4	**40-75**
#50	**8-28**
#200	**0- 8**

The gravel borrow shall be placed in six (6") inch maximum layers and then compacted to not less than 95% of maximum optimum density as determined by AASHTO Test Designations: T99-57, Method C.

Measurement of gravel borrow shall be the number of cubic yards furnished and placed in accordance with these Specifications and as directed by the Engineer. The number of cubic yards in place and accepted shall be measured by or calculated by the Engineer. Twenty-five (25%) percent will be added to the figure for compacting. Only gravel borrow placed within the established pay limits necessary to complete the work as established by the Engineer shall be considered for payment. If, in the opinion of the Engineer, the Contractor has excavated areas to an excessive width or depth, either through error or for his own convenience, the gravel borrow used to refill the trenches beyond the reasonable depth or width, as established by the Engineer, shall be paid for by the Contractor. Failure to allow ample time for the Engineer to make the required measurements will forfeit the Contractor's right-of-claim to any gravel borrow other than that allowed by the Engineer.

Payment for gravel borrow shall be made for the number of cubic yards as determined above at the contract unit price, per Cubic Yard, for **Item 151.22: Gravel Borrow for Sidewalks**, as set forth in the proposal, which price shall be full compensation for all materials, equipment, tools, labor, backfilling, leveling and initial compaction, etc., and all else incidental thereto. Fine grading and compaction, wherever required, shall be paid for under the applicable item.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions, as applicable.

*** END OF SECTION ***

FINE GRADING & COMPACTION
OF
SUB-GRADE/SUB-BASE AREAS

The Work under this Item shall conform to the relevant provisions of Section 170 of the Standard Specifications and the following:

The Work shall consist of the removal of temporary pavement and the underlying material over trenches and other areas including pavement saw cutting for specified cutbacks, excavation to sub-grade, fine grading and compaction, as required or as directed by the Engineer. The sub-grade areas shall be formed to the proposed cross-sections and compacted to the required dimensions, or as directed, in accordance with the provisions of sub-section 150.60 and 150.62.

Measurement of fine grading and compaction of the sub-grade areas (Item 170) shall be the number of square yards of area graded, shaped and compacted, as specified and as directed by the Engineer.

The additional gravel required to fill the depression or to replace the unsuitable materials removed shall be paid separately under Item 151.22.

Payment for this **Item 170: Fine Grading & Compaction of Sub-Base/Sub-Grade Areas** shall be the number of square yards, as determined above at the contract unit price, for the item as set forth in the proposal, which price shall be full compensation for all materials, equipment, tools, labor, additional excavation, if any, materials, etc. and all else incidental thereto.

The measurement and payments provisions listed under Division 1, Section 01025, shall supplement the above provisions, as applicable.

*** END OF SECTION ***

CATCH BASINS

The work under this Item shall conform to the relevant provisions of Section 200 and the following:

This work shall consist of furnishing and placing pre-cast catch basin sections, castings, and performing all excavation and backfill all in accordance with the designs and details shown on Drawings, as specified herein or as directed by the Engineer.

The materials used in construction of catch basins shall conform to Section 201.40 or as directed by the Engineer.

Catch basin frames shall be set to the finished lines and grades, as specified. The castings shall be set in bituminous concrete collars and underlain with cement concrete. The collars shall be at least 9 inches deep and extend to a radius of one (1) foot beyond the circumference of the frame, as shown on the contract drawings.

Catch basin or gutter inlet frames and grates shall be as manufactured by Lebaron Foundry Catalog number LF248-2 Type F or approved equal and as shown on the plans.

Quantities of catch basin will be measured as a complete unit, in place, (regardless of depth) and accepted by the Engineer.

Payment for catch basins shall be made for the number of units constructed as determined above at the contract unit price for **Item 201.5: Catch Basins** . Payment for frames, grates (castings) excavation, gas trap and hood, backfill, compaction, placement of concrete collars and pavement materials, and all related work, shall be included in the contract unit price of the catch basin.

Castings required under this Item shall not be charged against Item No. 222. Replacement frame, with grate or cover.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions as applicable.

DRAIN MANHOLES

The work under this Item shall conform to the relevant provisions of Section 200 and the following:

This work shall consist of constructing Drain Manholes as specified on the contract drawings or as directed by the Engineer.

The materials used in construction of drain manholes shall conform to Section 201.40 or as designated by the Engineer. Manholes shall be constructed of pre-cast reinforced concrete sections unless directed otherwise by the Engineer.

Construction methods shall conform to Section 201, or as directed by the Engineer.

Manhole frames shall be set to the finished grades, as specified. The manhole frames shall be set in bituminous concrete collars underlain with cement concrete. The collars shall be nine (9) inches in depth and will extend to a radius of one (1) foot beyond the circumference of the frame.

Drain manhole frames and covers shall be as manufactured by Lebaron Foundry Catalog number LK110-Type A or approved equal and as shown on the plans.

Measurement for manholes shall be based on a complete unit in place (regardless of depth) and accepted by the Engineer.

Payment shall be made for the number of units completed and accepted by the Engineer at the contract unit price for **Item 202.5: Drain Manholes.** Payment for collars, frames, grates or covers (castings), excavations backfilling, compaction, placement of concrete collars and pavement materials and all related work, shall be included in the contract unit price of the manhole.

Castings required under this Item shall not be charged against Item No. 222. Replacement frame with grate or cover.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provision as applicable.

SANITARY SEWER MANHOLES

The work under this Item shall conform to the relevant provisions of Section 200 and the following:

This work shall consist of constructing Sanitary Sewer Manholes as specified on the contract drawings or as directed by the Engineer.

The materials used in construction of drain manholes shall conform to Section 201.40, as outlined below, or as designated by the Engineer. Manholes shall be constructed of pre-cast reinforced concrete sections unless directed otherwise by the Engineer.

A. General: All structures shall be capable of supporting AASHTO H20 loading and conform to the following additional requirements:

   1. The wall sections shall be not less than five inches thick.

   2. No more than two lift holes may be cast or drilled in any section.

   3. The date of manufacture and the name or trademark of the manufacturer shall be clearly marked on the inside of the riser section.

   4. Acceptance of the sections will be on the basis of material tests and inspection of the completed product.

   5. Openings for pipe and materials to be embedded in the walls of the structures shall be cast in the structures at the required locations during their manufacture.

B. Base Sections: Precast monolithic construction with steps, including anti-floatation slab.

C. Barrel Sections (Manhole Risers): Precast with steps.

D. Top Sections: Precast eccentric cone with steps. Use flat cover only if shown on Drawings.

E. Anti-floatation Slab: Contractor shall provide the precast structures requiring anti-floatation slabs as one monolithic precast unit.

F. Steps: Manhole sections shall contain manhole steps accurately positioned and imbedded in the concrete. The steps shall be manufactured from deformed ½" steel reinforcement rod complying with ASTM A615 and encased in polypropylene complying with ASTM D4101. Include pattern design to prevent lateral slippage off step. 12-inches on center with minimum width of 16-inches and 7-inches from wall for full height of manhole.

G. Pipe to Manhole Connections:

   1. Pipe diameter 6" or larger: Flexible manhole sleeves meeting ASTM C923. Size to fit diameter and type of pipe without use of gaskets.

   2. Pipe diameter less than 6": Thermoplastic pipe sleeve equal to "Link-Seal Century Line" model CS100 by Thunderline Corp. with sleeve seal equal to "Link-Seal" by Thunderline Corporation.

H. Joints between precast sections: Watertight, shiplap-type seal with and all weather performed joint sealant made of butyl rubber material in flexible rope form. It shall meet or exceed all requirements of AASHTO M-198 and ASTM C-990 section 6.2.1, Butyl rubber sealants.

I. MASONRY MATERIALS:

1. Sewer Brick: Brick shall be sound, hard, uniformly burned brick regular in shape and size. Brick shall conform to ASTM C32. Grade SS shall be used for inverts and shelves, and Grade MS shall be used for applications other than inverts and shelves.

2. Concrete Masonry Units: Conform to ASTM C139.

3. Mortar shall be composed of one part Type II Portland cement (ASTM C150), two parts sand (ASTM C144), well graded with no grain larger than will pass a Number 8 sieve, and 20 percent hydrated lime conforming to ASTM C207 Type S.

J. FRAMES AND COVERS: Minimum weight of 150 pounds, labeled with "SEWER" in 3-inch raised letters on cover.

K. Dampproofing: The exterior surfaces of all precast manhole bases, walls, and cones shall be given a minimum of two shop coats of bituminous dampproofing using cutback asphalt, AASHTO M81 or M82, Asphalt emulsion AASHTO M140 or approved equal, at 5 gallons per 100 square feet minimum per coat. Touch up in the field prior to backfilling as required by Engineer.

Construction methods shall conform to Section 201, or as directed by the Engineer.

Manhole frames shall be set to the finished grades, as specified. The manhole frames shall be set in bituminous concrete collars underlain with cement concrete. The collars shall be nine (9) inches in depth and will extend to a radius of one (1) foot beyond the circumference of the frame.

TESTING OF PRECAST MANHOLES:

A. General: Tests shall be observed by Engineer. Manholes must be complete for final test acceptance except for shelf and invert brickwork. Plug all pipes and other openings in the structure walls prior to test. The Contractor shall test all precast concrete manholes soon as they are installed to demonstrate that the work conforms to these specifications.

B. Vacuum Tests for Manholes :

1. After manhole has been constructed, the Contractor shall conduct a Manhole Acceptance Test using the vacuum test procedure in ASTM C1244 except as modified herein.

2. Plug all lift holes with an approved non-shrink grout.

3. Plug all pipes entering the manhole, taking care to securely brace the plug from being drawn into the manhole.

4. The test head shall be placed at the inside of the top of the cone section and the seal inflated in accordance with the manufacturer's recommendations.

5. Draw a vacuum of 10 inches of mercury and shut off the vacuum pump. With the valves closed, the time shall be measured for the vacuum to drop to 9 inches. The manhole, regardless of diameter, shall pass if the time is greater than:

   a. 1 min. 0 sec. for 0' to 10' deep manholes

   b. 1 min. 15 sec. for 10' to 15' deep manholes

   c. 1 min. 30 sec. for 15' to 25' deep manholes

6. If the vacuum drops in excess of the prescribed rate, the Contractor shall locate the leak, make proper repairs, and retest the manhole.

7. If the unit fails the test after the second repair, the unit shall be water exfiltration tested, if possible.

C. Exfiltration Test:

1. Plug pipes into and out of manhole and secure plugs.

2. Lower groundwater table (GWT) to below manhole. Maintain GWT at this level throughout test. Provide means of determining GWT level at any time throughout test.

3. Fill manhole with water to top of cone.

4. Allow a period of time for absorption (determined by Contractor).

5. Refill to top of cone.

6. Determine volume of leakage in an 8 hour (min) test period and calculate rate.

7. Acceptable leakage rate: Not more than 1 gallon per vertical foot per 24 hours.

8. Engineer reserves the right to require an infiltration test if he is not satisfied with the exfiltration test.

Measurement for manholes shall be based on a complete unit in place (regardless of depth) and accepted by the Engineer.

Payment shall be made for the number of units completed and accepted by the Engineer at the contract unit price for **Item 202.7: Sanitary Sewer Manholes.** Payment for precast concrete units, steps, connections to existing and proposed pipes, seals, collars, frames, grates or covers (castings), excavations backfilling, compaction, placement of concrete collars and testing and all related work, shall be included in the contract unit price of the manhole.

Payment for this item shall include all necessary labor, equipment and materials for the control of sanitary flows during the execution of work.

The measurement and payment provisions listed under Division One, Section 01025 shall supplement the above payment provisions, as applicable.

*** END OF SECTION ***

DRAINAGE STRUCTURE ADJUSTED
SANITARY STRUCTURE ADJUSTED

The work to be done under these **Items 220. and 220.7** shall conform to the relevant provisions of Section 220 of the Standard Specifications and the following:

This work shall consist of adjustments to all existing sanitary and drainage structures within the project limits, unless noted or directed otherwise. For structures in the roadway itself, the excavated area will be refilled with gravel with the casting set into a concrete collar. The new elevation of the structure shall be determined by the Engineer and all necessary work shall be done under this direction.

The City will assist the Contractor with the available information on the existing utility appurtenances/structures (sewer and drain manholes, catch basins, water valves, clean-outs, monitoring wells, etc.) located along the streets and sidewalks. Similar information on other utility appurtenances/structures (gas, electric, telephone, etc.) shall be obtained by the Contractor from the respective utility companies operating in the area.

The Contractor shall be fully responsible for the physical location of each of these utility appurtenances. This includes exposing the appurtenances/structures already paved over or discovered during the Contractor's construction operations.

The Contractor shall not pave over any of the utility appurtenances/structures unless specifically directed otherwise, in writing, by the Engineer. Any paving over of the utility appurtenances/structures, whether willful or inadvertent, shall be subject to a fine of two hundred dollars ($200.00) for each appurtenance/structure thus buried.

If during the course of the work, a defective casting is encountered, the Contractor shall remove it as directed by the Engineer. A new casting shall be installed by the Contractor. This shall not include the castings damaged by the Contractor, which shall be repaired or replaced by the Contractor at his expense.

Existing frames and grates belonging to the City, in good condition and not needed on the project, shall be transported and carefully stacked at the DPW Yard, or otherwise disposed of by the Contractor at no additional cost to the City.

Replacement castings shall not be included under these items but shall be paid for under a separate item or provided to the Contractor from the City of Quincy stockpile. The Contractor will be required to pick up the castings at the City Yard.

Payment for work under **Item 220: Drainage Structure Adjusted and Item 220.7: Sanitary Structure Adjusted** shall be at the contract unit price, per Each, for the respective Items, which price shall be full compensation for all labor, materials, and equipment necessary to complete the work, including restoration in kind of all disturbed surfaces.

Payment for temporary settings of frames and castings, as required, during the pavement construction operations shall also be included in the unit price, per Each, as set forth in the Bid Form.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above provisions, as applicable.

DRAINAGE STRUCTURE REMODELED

The work under this **Item 220.5** shall conform to the relevant provisions of Section 220 and the following;

The work shall consist of remodeling the cone of the structure where the line or grade requires a change greater than six (6") inches at existing sanitary and drainage structures, or where noted on the plans. For structures in the roadway itself, the excavated area will be refilled with gravel with the casting set into a concrete collar, overlain with 3-in. thick bituminous concrete top course. The Engineer shall determine the new elevation of the structure and all necessary work shall be done under his direction.

The City will assist the Contractor with the available information on the existing utility appurtenances/structures (sewer and drain manholes, catch basins, water valves, clean-outs, monitoring wells, etc.) located along the streets and sidewalks. Similar information on other utility appurtenances/structures (gas, electric, telephone, etc.) shall be obtained by the Contractor from the respective utility companies operating in the area.

The Contractor shall be fully responsible for the physical location of each of these utility appurtenances/structures already paved over or discovered during the Contractor's construction operations.

The Contractor shall not pave over any of the utility appurtenances/structures unless specifically directed otherwise, in writing, by the Engineer. Any paving over of the utility appurtenances/structures, whether willful or inadvertent, shall be subject to a fine or two hundred ($200.00) dollars for each appurtenance/structure thus buried.

If during the course of the work a defective casting is encountered, the Contractor shall remove it as directed by the Engineer. The Contractor shall install a new casting. This shall not include any damage by the Contractor, which shall be repaired or replaced by the Contractor at his expense. Existing frames and grates belonging to the City of Quincy, in good condition and not needed on the project shall be transported and carefully stacked at the DPW Yard or otherwise disposed of by the Contractor at no additional cost to the City.

Replacement castings shall not be included under this Item but shall be paid for under a separate item or provided to the Contractor from the City of Quincy stockpile. The Contractor will be required to pick up the castings at the DPW Yard.

Any remodeled drainage or sanitary structure, regardless of existing material, shall be paid for under **Item 220.5: Drainage Structure Remodeled**. Payment for work under this Item shall be at the contract unit price, per Each, which price shall be full compensation for all labor, materials, and equipment necessary to complete the work, including restoration in kind of all disturbed surfaces.

Payment for temporary setting of frames and castings, as required, during the pavement construction operations, shall also be included in the unit prices, per Each, as set forth in the Bid Form.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions, as applicable.

REPLACEMENT FRAME WITH GRATE OR COVER

The work under this **Item 222** shall consist of furnishing new castings and shall conform to the relevant provisions of Section 201 and Section 220 and the following:

Payment under this Item shall including furnishing new castings for the existing sanitary/drainage structures regardless of type or size or for existing structures that are to be adjusted or changed in type or remodeled and where existing castings need to be replaced.

New castings will be paid under **Item 222: Replacement Frame with Grate or Cover**, at the contract unit price, per Each, furnished and installed in place to the satisfaction of the Engineer. This price shall be full compensation for all labor, materials, equipment and tools necessary to complete the work including restoration in kind of all disturbed/damaged areas and facilities.

Unless directed otherwise, the Massachusetts Highway Department 1977 Standard Frame and Cover will be placed on all manholes. Square Frame type Catch Basin Frame and Cover with square hole grate shall be placed on all catch basins and gutter inlets and shall conform to the details as shown on the drawings. The cost of new castings for new structures shall be paid for under their respective items.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions, as applicable.

*** END OF SECTION ***

12-INCH REINFORCED CONCRETE PIPE - CLASS IV

The work under this Item shall conform to the relevant provisions of Section 230 of the standard specifications and the following:

The work shall include furnishing and installation of all pipes, fittings, excavation, backfilling, compaction and making the connection to existing drainage structures and all work related thereto.

When the existing drainage pipe to be replaced is encountered in the excavation for the new pipe, the removal and disposal of the existing pipe shall be included in the cost of the new pipe.

Payment for work under this Item shall be at the contract unit price, per Linear Foot, for **Item 243.12: 12-inch Reinforced Concrete Pipe (RCP) - Class IV and Fittings**. This price shall be full compensation for all labor, materials, equipment, including all pipe, fittings, excavation, pipe installation, existing drainage structure connection, (including coring of new penetrations and plugging abandoned penetrations) backfilling, compaction, restoration in kind of all damaged/disturbed surfaces and all else incidental thereto for which separate payment has not been provided for elsewhere.

Manholes, catch basins and castings for the existing sanitary/drainage appurtenances shall be paid for under their respective items.

Only Class A Rock Excavation shall be paid for separately.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions, as applicable.

8-INCH PVC SANITARY PIPE
10-INCH PVC DRAINAGE PIPE

The work under these Items shall conform to the relevant provisions of Section 230 of the standard specifications and the following:

The work shall include furnishing and installation of all pipes, fittings, excavation, backfilling, compaction and making the connection to existing drainage and sanitary structures and all work related thereto.

Pipe shall meet ASTM D3034 or D3033, strength requirements SDR 35, push-on joints ASTM D3212, gaskets ASTM F477.

When the existing drainage pipe to be replaced is encountered in the excavation for the new pipe, the removal and disposal of the existing pipe shall be included in the cost of the new pipe.

Manhole pipe connections between new pipe and proposed and existing manholes shall be sealed with premolded elastomeric boots. Boots shall be Kor-n-Seal or approved equal.

Payment for work under this Item shall be at the contract unit price, per Linear Foot, for **Items 248.8 8-Inch PVC Sanitary Pipe and 248.10 10-Inch PVC Drainage Pipe for each respectively.** This price shall be full compensation for all labor, materials, equipment, including all pipe, fittings, excavation, pipe installation, existing structure connection, (including coring of new penetrations and plugging abandoned penetrations), reconfiguration of brick invert of existing manholes, backfilling, compaction, restoration in kind of all damaged/disturbed surfaces and all else incidental thereto for which separate payment has not been provided for elsewhere.

Manholes, catch basins and castings for the existing sanitary/drainage appurtenances shall be paid for under their respective items.

Only Class A Rock Excavation shall be paid for separately.

The measurement and payment provisions listed under Division One, Section 01025 shall supplement the above payment provisions, as applicable.

*** END OF SECTION ***

GATE BOX ADJUSTED

The work under this **Item 358.** shall conform to the relevant provisions of Section 300 of the Standard Specifications and the following:

This work shall consist of adjustments to existing curb stops, water and gas gate and water and gas service gate boxes to newly proposed grade changes. Gravel base around gate boxes shall be compacted. for gate boxes in the roadway itself, the excavated area will be refilled with gravel and the tops of the gate boxes shall be set in concrete collars. The new elevation of the structure shall be determined by the Engineer, and all necessary work shall be done under his direction.

The City will assist the Contractor with the available information on the existing utility appurtenances/structures (sewer and drain manholes, catch basins, water valves, clean-outs, monitoring wells, etc.) located along the streets and sidewalks. Similar information on other utility appurtenances/structures (gas, electric, telephone, etc.) shall be obtained by the Contractor from the respective utility companies operating in the area.

The Contractor shall be fully responsible for the physical location of each of these utility appurtenances. This includes exposing the appurtenances/structures already paved over or discovered during the Contractor's construction operations.

The Contractor shall not pave over any of the utility appurtenances/structures unless specifically directed otherwise, in writing, by the Engineer. Any paving over of the utility appurtenances/structures, whether willful or inadvertently, shall be subject to a fine of two hundred dollars ($200.00) for each appurtenance/structure thus buried.

If during the course of the work, a defective curb stop or gate box is encountered, the Contractor shall remove it as directed by the Engineer. A new curb stop or gate box, and/or sleeve shall be installed by the Contractor. This shall not include any gate boxes and/or sleeves damaged by the Contractor which shall be repaired or replaced at the Contractor's expense.

Payment shall be made based on the number of completed units as determined from actual count by the Engineer. Payment shall be made as determined above at the contract unit price for **Item 358: Gate Box Adjusted** as set forth in the Bid Form, which price and payment shall be full compensation for all materials, labor, and equipment necessary to complete the work as specified including restoration in kind of all disturbed areas and all else incidental thereto.

New curb stops or gate boxes shall not be included for payment under this item, but shall be paid for under a separate item or provided to the Contractor from the City stockpile. The Contractor will be required to pick up the new units at the DPW Yard.

Payment for temporary setting of gate boxes, as required, during the pavement construction operations shall also be included in the unit price, per Each, as set forth in the Bid Form. The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions, as applicable.

HYDRANT - REMOVE AND RESET

GENERAL

The work under this item shall conform to the relevant provisions of Section 301 of the Standard Specifications and the following:

MATERIALS

Fittings and couplings used for the resetting of existing hydrants shall be ductile iron mechanical joint only in accordance with the Quincy Fire Department and Quincy Water & Sewer Department requirements. Fittings and couplings shall be bitumen coated after installation.

CONSTRUCTION METHODS

GENERAL

All hydrants shall be done so one hydrant at a time. The contractor shall have all the necessary tools, materials, equipment and workmen needed to do the work on site and ready before any hydrant is removed.

The contractor shall give 48 hours prior notice to the Quincy Fire Department and the Quincy Water and Sewer Department before removing any hydrant.

HYDRANTS TO BE REMOVED AND RESET

Hydrants noted on the plans to be removed and reset shall be removed and set on blocks near their present locations and protected from damage.

Excavate around the existing hydrant riser pipe and remove it at the 90 degree bend.

Excavate the trench needed to reset the hydrant on a new trust block in its proposed location.

Reset the hydrant at the proper height and plumb on a 4" x 8" x 16" solid concrete block and brace the hydrant as required.

Clean the existing pipe end and hydrant spigot. Install a new coupling and pipe section to the existing pipe and new gland, gasket, tee head bolts and nuts to connect the hydrant. Install a strap tie around the hydrant base, provide and install all joint restraint appurtenances needed to tie the proposed assembly to the existing pipe.

Provide a thrust block behind the hydrant having a minimum bearing area to 4 square feet against undisturbed soil. Form thrust blocks in such a manner so as to protect the hydrant base from being completely cast into the concrete and to assure that the hydrants drain valve will function properly and that all hydrant connection bolts, gland and nuts are accessible.

Provide crushed stone around the hydrant base, backfill and test the assembly as per the standard specifications.

Conduct pressure test and disinfection in accordance with the Quincy Water & Sewer Department requirements.

BASIS OF PAYMENT

Hydrants removed and reset shall be paid for at the contract unit price per each for Item 376.2, Hydrant – Remove and Reset. Such payment shall constitute full compensation for all labor, materials including couplings, pipe, and

other miscellaneous fittings and appurtenances, tools and equipment needed to remove existing hydrants from their existing locations and reset them to their proposed locations as noted on the plans and in accordance with these specifications.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions as applicable.

SERVICE BOX

The work under this **Item 381.** shall conform to the relevant provisions of Section 300 of the Standard Specifications and the following:

This work shall consist of replacement of water service gate boxes to newly proposed grade changes. Gravel base around gate boxes shall be compacted. The Engineer shall determine the new elevation of the structure, and all necessary work shall be done under his direction.

The City will assist the Contractor with the available information on the existing utility appurtenances/structures (sewer and drain manholes, catch basins, water valves, clean-outs, monitoring wells, etc.) located along the streets and sidewalks. The Contractor shall obtain similar information on other utility appurtenances/structures (gas, electric, telephone, etc.) from the respective utility companies operating in the area.

The Contractor shall be fully responsible for the physical location of each of these utility appurtenances. This includes exposing the appurtenances/structures already paved over or discovered during the Contractor's construction operations.

The Contractor shall not pave over any of the utility appurtenances/structures unless specifically directed otherwise, in writing, by the Engineer. Any paving over of the utility appurtenances/structures, whether willful or inadvertently, shall be subject to a fine of two hundred dollars ($200.00) for each appurtenance/structure thus buried.

If during the course of the work, a defective curb stop or service box is encountered, the Contractor shall remove it as directed by the Engineer. A new service box, and/or sleeve shall be installed by the Contractor. This shall not include any service boxes and/or sleeves damaged by the Contractor which shall be repaired or replaced at the Contractor's expense.

Payment shall be made based on the number of completed units as determined from actual count by the Engineer. Payment shall be made as determined above at the contract unit price for **Item 381: Service Box** as set forth in the Bid Form, which price and payment shall be full compensation for all materials, labor, and equipment necessary to complete the work as specified including restoration in kind of all disturbed areas and all else incidental thereto.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions as applicable.

*** END OF SECTION ***

DENSE GRADED CRUSHED STONE

The work under this Item shall conform to the relevant provisions of Section 402 and the following:

This work shall consist of furnishing, placing and compacting the crushed stone to correct the sub-base deficiencies in accordance with the details shown, or as directed by the Engineer.

The material shall be well-graded and conform to Section M2.01.7.

The material shall be placed in six inch (6") maximum layers and then compacted to not less than ninety-five percent (95%) of maximum optimum dry density as determined by AASHTO Test Designations: T99-57, Method C.

Measurement of material shall be the number of cubic yards furnished and placed in accordance with these specifications and as directed by the Engineer. The number of cubic yards, in place and accepted by the Engineer shall be measured by or calculated by the Engineer. Only gravel placed within the established pay limits necessary to complete the work as established by the Engineer shall be considered for payment. If, in the opinion of the Engineer, the Contractor has excavated areas to an excessive width or depth, either through error or for his own convenience, the gravel used to refill the trenches beyond the reasonable depth or width, as established by the Engineer, shall be paid for by the Contractor.

Failure to allow ample time for the Engineer to make the required measurements will forfeit the Contractor's right-of-claim to any gravel other than that allowed by the Engineer.

Payment for dense graded crushed stone shall be made at the contract unit price per cubic yard for **Item 402: Dense Graded Crushed Stone**, which price and payment shall be full compensation for all labor, materials, equipment, tools, backfilling, placement of materials, compaction, grading, etc., and all else incidental thereto. Any additional excavation required to comply with the specified dimensions and grades is also included under this Item.

The measurement and payment provisions listed under Division 1, Section 1150 shall supplement the above payment provisions as applicable.

*** END OF SECTION ***

GRAVEL FOR BASE COURSE

The work under this **Item 405.** shall conform to the relevant provisions of Section 400 of the Standard Specifications and the following:

This work shall consist of furnishing, placing and compacting the gravel for base course in accordance with the details shown, as specified, or as directed by the Engineer.

The gravel shall consist of hard, durable stone material free from loam and clay, well-graded, as per Section M1.03.0 (Type B).

The gravel borrow shall be placed in three inch (3") maximum layers and then compacted to not less than ninety-five percent (95%) of maximum optimum density, as determined by AASHTO Test Designations: T99-57, Method C.

Measurement of gravel shall be the number of cubic yards furnished and placed in accordance with these Specifications and as directed by the Engineer. The number of cubic yards, in place and accepted shall be measured by or calculated by the Engineer. Only gravel placed within the established pay limits necessary to complete the work as established by the Engineer shall be considered for payment. If, in the opinion of the Engineer, the Contractor has excavated areas to an excessive width or depth, either through error or for his own convenience, the gravel used to refill the trenches beyond the reasonable depth or width, as established by the Engineer, shall be paid for by the Contractor.

Failure to allow ample time for the Engineer to make the required measurements will forfeit the Contractor's right-of-claim to any gravel other than that allowed by the Engineer.

Payment for gravel shall be made for the number of Cubic Yards, as determined above, at the contract unit price for **Item 405: Gravel for Base Course**, as set forth in the Bid Form, which price shall be full compensation for all labor, materials, equipment, tools, additional excavation, if any, backfilling, placement of materials, compaction, grading, etc., and all else incidental thereto.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions, as applicable.

*** END OF SECTION ***

CLASS I BITUMINOUS CONCRETE TYPE I-1 (Base Course)

The work to be done under this **Item 420.** shall conform to the relevant provisions of Section 420 of the Standard Specifications, the work as described on the plans, and the following;

The work shall include all permanent and temporary bituminous concrete surfaces installed on the roadways, sidewalks and other areas to maintain traffic access/egress to all properties abutting any work and for the safe passage of pedestrian and vehicular traffic.

The bitumen for tack coat shall be applied over the existing cold planned or the prepared sub-base/sub-grade, or the newly installed base, or leveling courses, immediately prior to the installation of top course, as denoted on the plans or as directed by the Engineer. The surface shall be cleaned of all sand and foreign matter and dry before applying the prime coat.

Payment for the work under this item shall be at the contract unit price, per Ton, for **Item 420: Class I Bituminous Concrete Type I-1 (Base Course)**, which price shall be full compensation for all labor, materials, equipment and tools necessary for furnishing , placement, leveling, rolling and compaction of materials for the satisfactory completion of the work.

The payment for bitumen tack coat application shall be made separately under Item 463.

The measurement and payment provisions listed under Division 1, Section 1150 shall supplement the above payment provisions, where applicable.

*** END OF SECTION ***

CLASS I BITUMINOUS CONCRETE PAVEMENT
TYPE I-1 (LEVELING COURSE)

CLASS I BITUMINOUS CONCRETE PAVEMENT
TYPE I-1 (TOP COURSE)

BITUMEN FOR TACK/PRIME COAT

The work to be done under these **Items 460, 460.5, and 463.** shall conform to the relevant provisions of Section 460 of the Standard Specifications, the work as described on the plans and the following:

The work shall include all permanent and temporary bituminous concrete surfaces installed on the roadway, sidewalks and other areas, to maintain traffic access/egress to all properties abutting any work and for the safe passage of pedestrian and vehicular traffic.

Provide 2" minimum compacted thickness depth of Class I Bituminous Concrete Pavement Top Course (Type I-1) to achieve the proposed finish grades indicated on the Plans or as directed by the Engineer.

The bitumen for prime/tack coat shall be applied at the rate of 1/10 to 1/20 gallons per square yard over the existing cold planned surface, where denoted on the plans or as directed by the Engineer. The surface shall be cleaned of all sand and foreign matter and dry before applying prime/tack coat.

Hot poured rubberized asphalt sealant shall also be applied to longitudinal and transverse joint as per the MHWY standard specification, section 460. The sealant shall be considered incidental to all class I bituminous concrete pavement of said section.

Payment for the work under these Items shall be at the contract unit price, per Ton, for **Item 460: Class I Bituminous Concrete Pavement, Type I-1, for Top Course; Item 460.5: Class I Bituminous Concrete Pavement, Type I-1 for Leveling Course;** and per Gallon for **Item 463: Bitumen for Tack/Prime Coat**, which price shall be full compensation for all labor, materials, equipment, and tools necessary for furnishing, placement, leveling, rolling and compaction of materials and spraying of bituminous emulsions and all other work incidental thereto for the satisfactory completion of the work.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions, as applicable.

*** END OF SECTION ***

HOT MIX ASPHALT FOR MISC. USE

The work to be done under the **Item 472.,** when directed by the engineer, shall consist of placement of bituminous concrete for patching and handwork performed on roadway surfaces that cannot be installed mechanically. This work shall conform to the relevant provisions of Section 460 on the Standard Specifications, the work as described on the plans and the following:

The work shall include all permanent and temporary bituminous concrete surfaces installed on the roadway, and other areas, to maintain traffic access/egress to all properties abutting any work and for the safe passage of pedestrian and vehicular traffic.

Payment for the work under these Items shall be at the contract unit price per ton, for Item 472.: Hot Mix Asphalt For Misc. Use which price shall be full compensation for all labor, materials, equipment, and tools necessary for furnishing, placement, leveling, rolling and compaction of materials and spraying of bituminous emulsions and all other work incidental thereto for the satisfactory completion of the work.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions, as applicable.

*** END OF SECTION ***

GRANITE CURB - TYPE VA-3 - STRAIGHT
GRANITE CURB - TYPE VA-3 - CURVED

The work to be done under these Items shall conform to the relevant provisions of Section 500 of the Standard Specifications, supplemented by the following:

The ends of all curbs shall be vertical and such that a flush joint is formed when two curb stones are placed adjacent to each other. Maximum joint space not to exceed 3/4 inches. The top 7-inches (exposed portion) of curb stone shall be uniform thickness and surface finish. The radii of the curved curb stone shall be as shown on drawings.

Payment for **Item 503: Granite Curb - Type VA-3 - Straight; and Item 503.1: Granite Curb - Type VA-3 - Curved** shall be at the contract unit price, per Linear Foot, complete in place and accepted by the Engineer (including the transition section), which price shall be full compensation for furnishing and installation of curbing including excavation, backfilling, saw cutting, cutting of curb pieces, curb setting, placement of dense graded crushed stone, concrete bedding and pavement materials and all else incidental thereto and necessary to complete the work.

The measurement and payment provisions listed under Division 1, Section 1150 shall supplement the above payment provisions, as applicable.

GRANITE CURB CORNER

The work to be done under this Item shall conform to the relevant provisions of Section 501 of the Standard Specifications, supplemented by the following:

Payment for this **Item 517: Granite Curb Corner** shall be at the contract unit price, per Each, complete in place and accepted by the Engineer which price shall be full compensation for all labor, materials, and equipment, including excavation, backfilling, saw cutting, preparation of inlet foundation, placement of concrete bedding, and dense graded crushed stone and other materials and all else incidental thereto for the satisfactory completion of the work.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions as applicable.

*** END OF SECTION ***

CURB REMOVED AND RESET
CURB CORNER REMOVED AND RESET

The work under these Items shall conform to the relevant provisions of Section 580 of the Standard Specifications and the following:

Resetting of curbs, curb inlets and curb corners may be required at any location within the project limit. All the existing curbs, curb inlets and curb corners shall be incorporated into the work before the installation of new curb stones. The use and payment for new curb pieces will not be accepted unless agreed to in writing by the Engineer.

Payment for **Item 580: Curb Removed and Reset; and Item 583: Curb Corner Removed and Reset** shall be at the contract unit price, per Linear Foot, and per Each respectively, complete in place and accepted by the Engineer. The contract unit prices will include all labor, equipment and materials including saw cutting of the existing pavement where indicated or directed, the removal of the existing pavement, excavation, removal and resetting, all handling, cutting ends square, trimming exposed and hidden faces, cleaning all sections to be reset, gravel borrow, including grading and compacting and/or placement of concrete base, pavement materials between the reset curb and the existing or proposed pavement, and all else incidental thereto for the satisfactory completion of the work.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions as applicable.

*** END OF SECTION ***

GRANITE CURB - REMOVED AND STACKED

The work under this Item shall conform to the relevant provisions of Section 500 of the Standard Specifications and the following:

Removal of granite curbs, curb inlets, and curb corners may be required at any location within the project limits. All existing curbs, curb inlets and curb corners, which in the opinion of the Engineer, cannot be reused in the work under the contract, but otherwise are in good conditions, shall be delivered and stacked at the DPW Yard, 55 Sea Street.

Payment for work under **Item 590.: Granite Curb - Removed and Stacked** shall be at the contract unit price, per Linear Foot, stacked in place and accepted by the Engineer. The contract unit price shall include all labor, equipment and materials, including saw cutting of the existing pavement, where indicated or directed, the removal of the existing pavement, excavations, removal of the curb, all handling, hauling and stockpiling/stacking, cleaning all sections, and all else incidental thereto for the satisfactory completion of the work.

The measurement and payment provisions listed under Division One, Section 01025 shall supplement the above payment provisions, where applicable.

*** END OF SECTION ***

CEMENT CONCRETE SIDEWALK
CEMENT CONCRETE AT DRIVEWAY
CEMENT CONCRETE WHEELCHAIR RAMP

The work to be done under these Items shall conform to the relevant provisions of Section 700 of the Standard Specifications and the following:

Included in the work are cement concrete sidewalks, and other paved surfaces as called for in the plans, or as directed. Bounds and utility appurtenances, castings in sidewalks shall not be covered over. Sidewalk surfaces are to be graded flush with the bounds and castings. All cement concrete surfaces shall be broom finished.

The location of expansion, contraction and construction joints in the cement concrete sidewalk shall be determined by the Engineer in the field. However, such joints in straight sidewalk sections shall not exceed 25 feet. Expansion/contraction joints shall be filled with elastic filler material, as approved by the Engineer.

Wheelchair ramps are to be constructed at locations as shown or as designated by the Engineer in accordance with the latest details as per the American Disabilities Act and the Massachusetts Highway Department Standards.

The commercial driveways and all wheelchair ramps shall be reinforced with 6-in X 6-in No. 2 Reinforced Steel Bar Mesh. Approximately 3 feet length of the sidewalk on either side of the driveway shall also be reinforced with steel reinforcement bars and described above. The cost of the reinforcement shall be included under Cement Concrete Wheelchair Ramps and Driveways.

Payment for **Item 701: Concrete Sidewalk - 1 Course; Item 701.1: Cement Concrete Sidewalk at Driveway; and Item 701.31: Cement Concrete Wheelchair Ramps**, shall be at the contract unit prices, per square yard for each of these items, completed as specified and accepted by the Engineer. These prices shall be full compensation for all labor, materials, equipment, and tools, including preparation of sub-base, grading, leveling, compaction, placement of reinforcement steel, cement concrete, joint fillers, sealants and woven wire mesh, as required, and all else incidental to the satisfactory completion of the work.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions.

*** END OF SECTION ***

MASS HIGHWAY

Number: E-04-007

Date: 12/16/2004

ENGINEERING DIRECTIVE

CHIEF ENGINEER

Detectable Warning Panels – Revised

Effective immediately, the *1996 Metric Edition Construction and Traffic Standard Details* and the *1997 [English Edition] Construction Standards* are amended with the following revised drawings (attached):

M/E 107.2.1R	**Wheelchair Ramp on Narrow Sidewalk**
M/E 107.6.5R	**Detectable Warning Panel for Wheelchair Ramps**

These drawings supersede drawings dated April 2004, issued under Engineering Directive E-04-003. These drawings shall be used immediately on all design and construction projects.

The depth of Detectable Warning Panels shall be 24 inches (610 mm) in the direction of travel. All other guidance provided in the text of Engineering Directive E-04-003 dated April 16, 2004 remains in effect.

Attachments

Distribution:_____ **Please Post:** _____ **Do Not Post:** _X_

02705-2

E-04-007

2/16/2004

MASS HIGHWAY

Number: E-04-003

Date: April 16, 2004

ENGINEERING DIRECTIVE

Thomas F. Broderick

CHIEF ENGINEER

DETECTABLE WARNING PANELS

Effective immediately, the *1996 Metric Edition Construction and Traffic Standard Details* and the *1977 [English Edition] Construction Standards* are amended with the following new drawings (attached):

l the *1997*
ttached):

M/E 107.2.1 Wheelchair Ramp on Narrow Sidewalk
M/E 107.6.5 Detectable Warning Panel for Wheelchair Ramps

These drawings have been issued to comply with the FHWA enforcement of the Federal Access Board's decision to require detectable warning panels at certain locations. Detectable warning panels are intended to alert sight-impaired pedestrians that they are about to enter potentially hazardous locations. The drawings also include a new configuration of wheelchair ramps that can be used for narrow sidewalks.

4-003.

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mains in

Detectable warning panels shall be installed on all wheelchair ramps as shown on the drawings. Panels shall also be installed on all sidewalks that are crossed by train tracks to warn pedestrians that they are about to enter a track area. These panels shall be 25" (635 mm) long in the direction of travel and shall be installed across the entire sidewalk. The designer shall show the proposed location(s) of warning panels on the plans after consulting with the operator of the tracks about the safe envelope required around the tracks. The Resident Engineer shall verify the actual location(s) of warning panels with the operator of the tracks prior to installation.

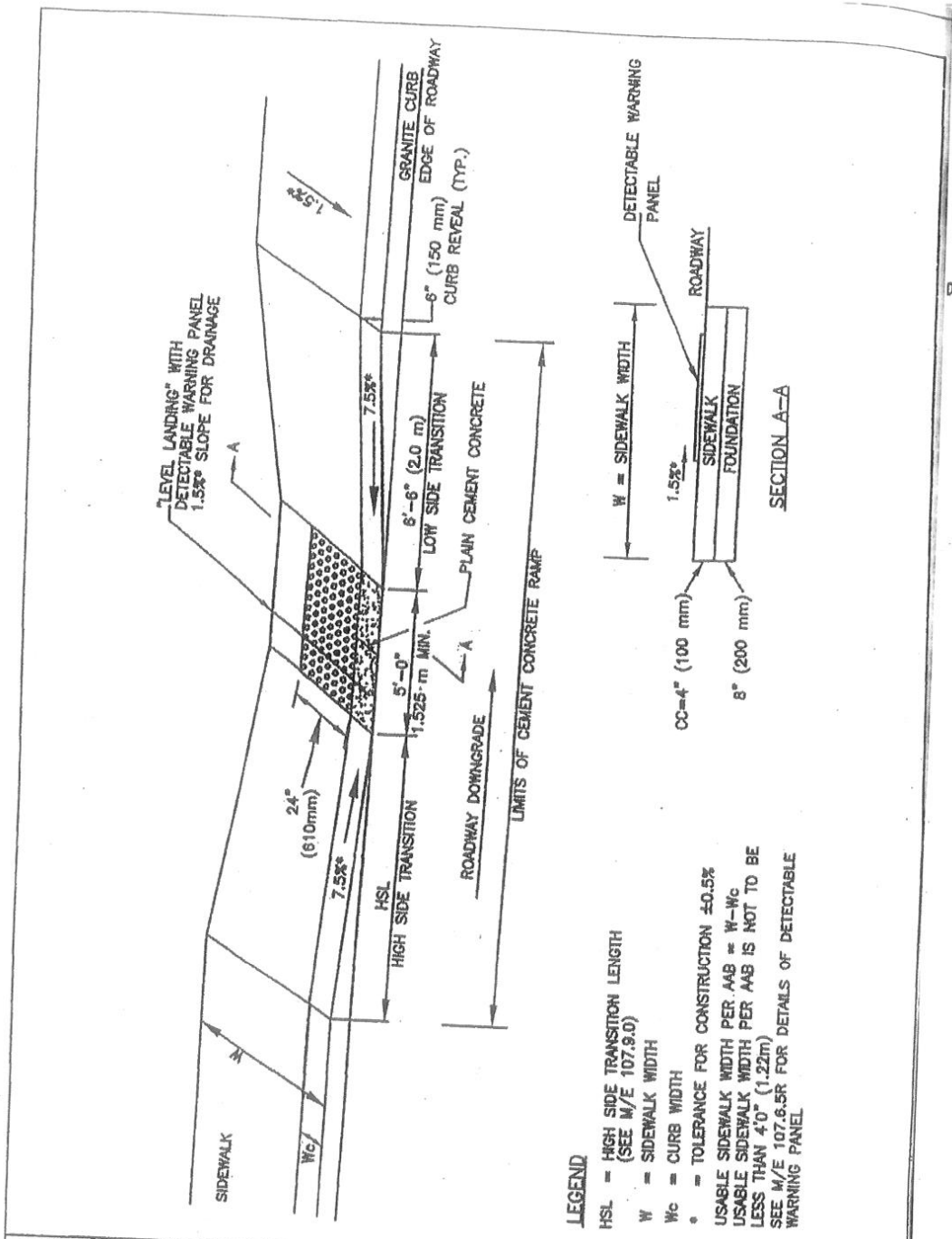
Designers shall include detectable warning panels in all applicable design documents immediately.

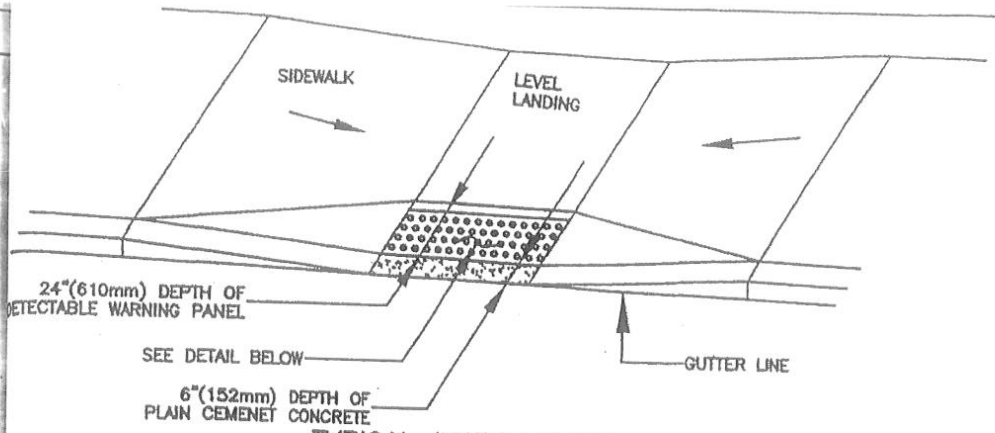
For projects already under construction or for which detectable warning panels are not otherwise included in the design documents at the time of construction, contractors shall install all required detectable warning panels in all locations where the applicable wheelchair ramps or sidewalk surfaces are not already completed, effective immediately.

Payment for detectable warning panels shall be considered incidental to the construction of the wheelchair ramps or sidewalks in which they are being installed.

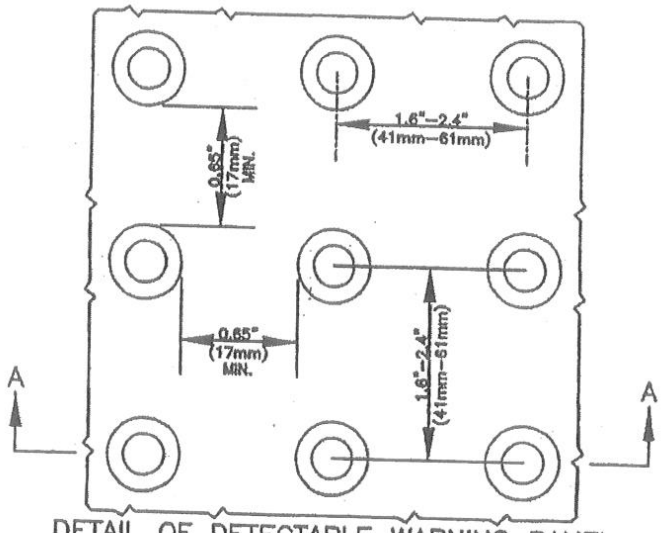
Attachments:

02705-3

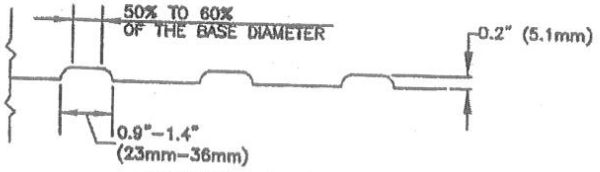

"LEVEL LANDING" WITH DETECTABLE WARNING PANEL 1.5%* SLOPE FOR DRAINAGE
A
1.5%*
7.5%*
GRANITE CURB
EDGE OF ROADWAY
6" (150 mm) CURB REVEAL (TYP.)
8'-6" (2.0 m) LOW SIDE TRANSITION
PLAIN CEMENT CONCRETE
5'-0" 1.525 m MIN.
24" (610mm)
7.5%*
HSL
HIGH SIDE TRANSITION
ROADWAY DOWNGRADE
LIMITS OF CEMENT CONCRETE RAMP
SIDEWALK
W
Wc
DETECTABLE WARNING PANEL
ROADWAY
W = SIDEWALK WIDTH
1.5%*
SIDEWALK
FOUNDATION
CC=4" (100 mm)
8" (200 mm)
SECTION A-A
LEGEND
HSL = HIGH SIDE TRANSITION LENGTH (SEE M/E 107.9.0)
W = SIDEWALK WIDTH
Wc = CURB WIDTH
* = TOLERANCE FOR CONSTRUCTION ±0.5%
USABLE SIDEWALK WIDTH PER AAB = W-Wc
USABLE SIDEWALK WIDTH PER AAB IS NOT TO BE LESS THAN 4'0" (1.22m)
SEE M/E 107.6.5R FOR DETAILS OF DETECTABLE WARNING PANEL
MASS HIGHWAY CONSTRUCTION STANDARDS
WHEELCHAIR RAMP ON NARROW SIDEWALK WITH DETECTABLE WARNING PANEL
DATE OF ISSUE December 2004
DRAWING NUMBER M/E107.2.1R
02705-4



TYPICAL INSTALLATION



DETAIL OF DETECTABLE WARNING PANEL



SECTION A–A

NOTE:

PANELS MAY BE CONCRETE PRECAST OR CAST IN PLACE OR OTHER SUITABLE MATERIAL PERMANENTLY APPLIED TO THE RAMP. DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES EITHER LIGHT–ON–DARK, OR DARK–ON–LIGHT

MASS HIGHWAY CONSTRUCTION STANDARDS	DETECTABLE WARNING PANEL FOR WHEELCHAIR RAMPS	DATE OF ISSUE December 2004 DRAWING NUMBER M/E107.6.5R

02705-5

INLAID THERMOPLASTIC ASPHALT PAVEMENT MARKING SYSTEM

The work to be done under this Item shall consist of texturing crosswalk pavement at certain crosswalks with the imprint pattern specified herein. Work shall be in conformance with the applicable provisions of Section 460 and 701, and the following:

Part 1: General

1.1. Description

Pavement imprint texturing shall be applied at the crosswalks as shown on the plans or as directed by the Engineer.

Pattern shall be imprinted into hot bituminous surfaces at designated locations using a series of reusable wire templates. Imprinted surfaces shall then be created by in-laying pre-cut thermoplastic panels into the asphalt pavement by first pre-heating the pavement and then imprinting the heated asphalt pavement to create depressions to match the desired pattern. The thermoplastic is then installed within the depressions and melted into place to create the desired marking. The top of the installed thermoplastic must be installed slightly below the surface level of the surrounding asphalt pavement.

A. The installation shall be performed by a qualified applicator that has proven experience working with Inlaid Thermoplastic Asphalt Pavement Marking Systems. Applicators shall be approved by the qualified supplier. References must be provided.

B. Use asphalt pavement re-heat equipment that cycles the heat application and allows the equipment operator to check the pavement surface temperature during the heating process. The asphalt pavement re-heat equipment must have a proven track record of success in the application of an Inlaid Thermoplastic Asphalt Pavement Marking System.

C. The thermoplastic used must be suitable for the intended purpose. Only use thermoplastic from a supplier who has a proven thermoplastic product in the application of an Inlaid Thermoplastic Asphalt Pavement Marking System. Reference sites will be required.

D. The thermoplastic shall be pre-cut by a die or other pattern cutting machine into thermoplastic panels in the desired pattern. This is to ensure quality is controlled and reduce the number of joints. Cutting thermoplastic strips on site to fit the pattern shall not be used as the primary method to fit the thermoplastic to the pattern.

E. The stamping templates are to be designed and constructed in the same shape and size as the pre-cut thermoplastic panels and must be created in a machine shop using CNC or equal equipment to ensure quality and consistency of the shape and size of these templates.

F. The thermoplastic shall be provided with impregnated glass beads (to provide retro-reflectivity).

1.2 References

A. ASTM D570 Standard Test Method for water absorption of plastics.

B. ASTM D36 ASTM D36-06 Standard Test Method for Softening Point of Bitumen (Ring-and-Ball Apparatus).

C. AASHTO T250 Binder Content

D. ASTM D792 Standard Test method for density and specific gravity (relative density) and density of solid plastics.

E. AASHTO T250 Low Temperature Stress resistance

F. ASTM D 2240 Standard Test Method for Rubber property — Durometer hardness.

G. ASTM D256, Method A Standard Test Method for determining the IZOD pendulum impact resistance of plastics.

H. ASTM D92 Test Method for Flash points.

1.3 Definitions

A. "Accredited Applicator" is an applicator that is accredited and licensed for the current calendar year to install an Inlaid Thermoplastic Asphalt Pavement Marking System.

B. "Owner" means the Owner and refers to the representative person who has decision making authority for the implementation of the Inlaid Thermoplastic Asphalt Pavement Marking System.

C. "The Work" is as outlined in the Scope of Work and includes the execution of the Inlaid Thermoplastic HMA Pavement Marking System.

D. "ASTM" is American Society for Testing and Materials.

1.4 Required Bid Submittal Documents

The documents required as part of this bid submission are as follows:

A. Name of the supplier of the thermoplastic material.

B. Product Data Sheet for thermoplastic.

C. Thermoplastic color sample(s).

D. Typical cut sheets of the proposed pre-cut thermoplastic panels.

E. A list of all equipment to be used in the execution of this Work including re-heat equipment, templates, compactors and finishing tools.

F. At least 3 reference locations where the proposed Inlaid Thermoplastic HMA Pavement Marking System has been in use for 4 years or longer.

G. A copy of the current year certificate of accreditation for the applicator that is to perform the Work. Failing that, at least 3 reference sites and written references from 4 previous customers for work performed by this applicator.

Part 2: Products

2.1 Materials

The thermoplastic shall be provided as pre-cut panels in sizes to conform to the specified pattern, widths and shapes. Cutting thermoplastic strips on site to fit the pattern must not be used as the primary method to fit the thermoplastic to the pattern. The thermoplastic shall be packaged in accordance with accepted commercial standards and shall be protected before and during installation.

2.1.1 Typical Properties of the Thermoplastic

A. The thermoplastic shall consist of homogeneously mixed pigments, fillers, resins, fibers, and, for applications requiring retro-reflectivity, glass beads. The pigments and fillers shall be uniformly dispersed in resin. The material shall be free from dirt and foreign objects.

B. The thermoplastic shall be supplied preformed or precut at a standard thickness of 90 mils (+/- 10%).

C. The thermoplastic shall be provided as a retroreflective pavement marking material through the use of glass beads homogeneously mixed in the thermoplastic.

D. Upon heating to application temperature, the thermoplastic will flow and preserve the integrity of its properties including its color.

E. Environmental and Chemical Resistance: The thermoplastic shall be resistant to deterioration when exposed to sunlight, gasoline, oil, salt, water or adverse weather conditions.

2.1.2 Product Data: Typical Properties of Suitable Thermoplastic:

Property	**Test Method** Mat	**Typical Results of Thermoplastic**
Water Absorption	ASTM D570	0.27%
Binder Content	**AASHTO T250**	**20.01% with** d.o. beads
Softening point	ASTM D36	240°F
Low Temp. Resistance @ 15°F	AASHTO T250	No visual cracks
Specific Gravity	ASTM D792	2.00
Indentation resistance @ 110°F for 15 sec.	ASTM D 2240 (after flaming)	43 (Shore A)
Impact. Resistance	ASTM D256, Mtd A	4.9+ N-m
Flash Point	ASTM D92	500°F

2.2 Equipment

The following equipment is recommended in the execution of this Work:

A. Stamping templates shall be used to provide the primary imprinting of the specified pattern into the asphalt pavement. Templates shall be thicker than the thermoplastic to enable the applicator to ensure the top of the inlaid thermoplastic is slightly lower than the surrounding asphalt pavement surface. Templates shall be designed and constructed in the same shape and size as the pre-cut thermoplastic panels and must be created in a machine shop using CNC or equal equipment to ensure quality and consistency of the shape and size of these templates.

B. The primary asphalt pavement re-heat equipment shall cycle the heat application and shall allow the equipment operator to check the pavement surface temperature during the heating process. These controls are necessary to enable the pavement temperature to be elevated gradually, giving the operator the ability to ensure that the pavement is not overheated or adversely affected. Heaters without these controls shall not be used as the primary re-heat equipment.

C. Asphalt pavement re-heat equipment shall have a proven track record of success for the application of an Inlaid Thermoplastic Asphalt Pavement Marking System.

D. Hand-held portable heating devices may be used only for areas where it is difficult to operate the re-heat machine. These may not be used as the primary pavement re-heating device.

E. Finishing tools that are designed to enable the applicator to complete the imprinting of the asphalt pavement in areas which may be inaccessible to the template such as curbs and manhole covers are permitted.

F. Vibratory Plate Compactors shall be used for pressing the stamping templates into the heated asphalt pavement to create the specified pattern.

2.3 Inlaid Thermoplastic Asphalt Pavement Marking System

The following equipment is recommended in the execution of this Work:

The Inlaid Thermoplastic Asphalt Pavement Marking System shall be Duratherm as manufactured by Integrated Paving Concepts or approved equal.

Pattern: Wagonwheel SR120 without color white borders.

Part 3: Execution

3.1 General

The Inlaid Thermoplastic Asphalt Pavement Marking System shall be supplied and installed in accordance with the plans and specifications and only by an Applicator who is accredited or has proven ability in this type of Work. In any circumstance, do not begin installation without confirmation of Applicator accreditation or ability.

3.2 Pre-Conditions

3.2.1 New Asphalt Pavement

The asphalt pavement must be stable, well compacted and generally in excellent condition for the application of the Inlaid Thermoplastic Asphalt Pavement Marking System.

3.2.2 Pavement Marking Removal

Because the aesthetics of the final product depends largely upon the condition of the asphalt pavement, use of pavement marking removal methods is likely to produce a pavement surface that is unsatisfactory for the installation of Inlaid Thermoplastic Asphalt Pavement Marking System. A test area may be used to check if adequate or not. The Owner shall determine if the removal of the markings is satisfactory for the application of this Work. The Work shall not proceed until this approval is granted.

3.2.3 Surface Preparation

The asphalt pavement surface shall be dry and free from all foreign matter, including but not limited to dirt, dust, de-icing materials, and chemical residue.

3.3 Layout

Layout of the pattern for imprinting into the surface of the asphalt pavement shall be as per the drawings and specifications in conjunction with the Owner.

3.4 Heating the Asphalt Pavement

Primary heating of the asphalt pavement surface is accomplished using the equipment as outlined in Section 2.2 above.

A. Pavement temperature. The optimal pavement temperature for imprinting the template is dependent upon mix design, modifiers used in the mix, and the age of the pavement. Typically, the surface temperature of the pavement should not exceed 325T as determined by an infra-red thermometer.

B. In order to achieve the proper depth of imprint it is important to elevate the asphalt pavement temperature to a minimum depth of 1/2 inch (12.5mm) without burning the pavement surface.

3.5 Surface Imprinting

A. Once the asphalt pavement has reached imprinting temperature, the templates shall be placed and held in position then pressed into the surface using vibratory plate compactors. Once the top of the template is level with the surrounding asphalt pavement, the template can be removed.

B. Areas that have an imprint depth less than the depth of the template shall be re-heated and re-stamped prior to installing the thermoplastic.

C. In areas difficult to get at with the template, or areas that have light print, the hand held finishing tool may be used to complete the imprint process.

3.6 Installing the Thermoplastic

A. The asphalt pavement surface shall be dry and free from all foreign matter, including but not limited to dirt, dust, de-icing materials, and chemical residue. Cleaning of the asphalt pavement must be re-done to remove any loose materials that may appear after the imprinting process is completed.

B. The pre-cut thermoplastic shall be installed within the imprinted depressions, ensuring the appropriate overlap at the thermoplastic joints.

C. Heat shall be re-applied to the surface using the approved re-heat equipment.

D. The temperature shall be monitored to ensure the thermoplastic is not over-heated. The thermoplastic must be heated to its full depth in order for the thermoplastic material to melt and create a bond with the underlying asphalt pavement.

E. The joints between the thermoplastic pieces are to be melted together creating a seamless installation.

F. Once the thermoplastic has been liquefied to its full depth, the heat source shall be removed and the surface allowed to cool.

G. For low temperature applications, extra care must be taken to ensure the thermoplastic is thoroughly heated to assure a bond between it and the underlying asphalt pavement. Do not proceed with this Work process when the outside air temperature is below 40°'F (5°C).

H. Do not install during periods of precipitation.

3.7 Protection and Opening to Traffic

A. The melted thermoplastic is to be protected until it cools and hardens. Do not permit any debris such as dust, water, pollen etc to come in contact with the melted thermoplastic.

B. Generally, the road may be opened to traffic once the thermoplastic has cooled to 140°F (60°C). Refer to supplier instruct ions.

The measured area is the actual area of asphalt pavement that has received the Inlaid Thermoplastic Asphalt Pavement Marking System, measured in place. No deduction will be made for the area(s) occupied by manholes, inlets, drainage structures, bollards or by any public utility appurtenances within the area.

Payment for **Item 702.3: Inlaid Thermoplastic Asphalt Pavement Marking System**, shall be at the Contract unit price bid per square foot, which price shall be full compensation for furnishing and installing all equipment, materials and labor to provide imprint pavement texturing at specified locations. This work shall include the use of wire templates, imprinting, coating materials, and necessary protection and plating to maintain traffic during the surface coat drying period.

The measurement and payment provisions listed under Division One, Section 01025 shall supplement the above payment provisions, as applicable.

*** END OF SECTION ***

TRASH RECEPTACLE REMOVED AND RESET
MAIL BOX REMOVED AND RESET

The work to be done under this item shall conform to the relevant provisions of Section 715 of the Standard Specifications and the following:

The Contractor shall carefully remove existing trash receptacles and mailboxes as shown on the Drawing and as directed by the Engineer.

The Trash Receptacle and Mailbox shall be satisfactorily stored and protected until reset in the proposed work.

Trash Receptacles and Mailboxes lost, damaged or otherwise made unsuitable for reuse while being removed, transported, and stored or reset shall be replaced with new material at no additional cost. New attachment hardware shall be furnished and installed as necessary to replace any missing or unusable existing hardware.

Payment for the work under these items will be made at the contract unit price per each for these **Item: 707.25 Trash Receptacle Removed and Reset; Item 715.1 Mail Box Removed and Reset**, respectively items, which price shall be full compensation for removing, storing and resetting of the trash receptacle or mailbox as designated above, including all labor, material and incidentals to complete the work as shown on the Drawing and as directed by the Engineer.

The measurement and payment provisions listed under Division One, Section 01025 shall supplement the above payment provisions, as applicable.

*** END OF SECTION ***

MOBILIZATION/DEMOBILIZATION

The work to be done under this Item shall conform to the relevant provision of Section 748 of the Standard Specifications and the following:

The work under this item shall include all mobilization of men, materials, equipment and related support facilities to satisfactorily perform the job as required to meet the project construction schedules. Also included under this item shall be the demobilization of all men, materials, equipment and the related support facilities and the final site clean-up on project completion and its acceptance by the City.

Payment for **Item 748: Mobilization/Demobilization** shall be on a lump sum basis with the item amount as set forth in the Bid Form to be divided equally for mobilization (50%) and demobilization (50%). These payments shall be full compensation for all preparation work and operations, movement of men, equipment, supplies and incidentals to the project site for the establishment of full office and facilities necessary for work on this project and all other work and operations which must be performed from the time prior to the start of the work to the final acceptance of the work by the City.

The amount allocated to demobilization activities shall not be paid until the job, including restoration work, is completed, accepted and the project area is cleaned to the satisfaction of the Engineer.

Lump sum prices for all work, operations and expenses in connection with mobilization and demobilization shall not exceed three percent (5%) of the total bid amount for the entire project.

The measurement and payment provisions listed under Divisions 1, Section 01025 shall supplement the above payment provisions, as applicable.

*** END OF SECTION ***

LOAM BORROW

The work to be done under this Item shall conform to the relevant provisions of Section 751of the Standard Specifications and the following:

The work shall consist of furnishing and placing loam borrow at designated locations where plant material (grasses, bushes and trees, etc.) are to be installed. All work shall be performed in close conformity with the lines, grades and locations shown on the plans or established by the Engineer in the field.

Loam Borrow shall conform to Section M1.05.0.

Payment for **Item 751.: Loam Borrow** shall be at the contract unit price, per Cubic Yard, in place and accepted by the Engineer. This price shall be full compensation for all labor, materials, and equipment including placement/spreading and rolling/tamping of the materials, excavation and preparation of areas and locations for installation of plant materials and all other work incidental to the satisfactory completion of the work.

The above payment shall also include excavation of test pits as required, along the sidewalks or near the designated locations to insure non-interference with underground utilities.

Note: It must be noted that all seeding, loaming and landscaping of areas, not originally included in the scope of work but subsequently necessitated due to the Contractor's operations shall be considered as a part of restoration work and shall not be paid for under this item. All costs associated with the restoration work shall be included under the item of work which necessitated the restoration work.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions as applicable.

*** END OF SECTION ***

STRUCTURAL SOIL MIX

DESCRIPTION

Under this item the Contractor shall furnish, mix and place a Structural Soil Mix with Hydrogel on Geotextile Separation in the locations shown on the plans or as directed by the Engineer.

MATERIALS

Structural Soil Mix shall conform with "CU Soil", as patented by Cornell University, Patent #5,849,069. The product shall be obtained from a licensed producer and proof of such licensing shall be submitted to the Engineer prior to delivery to the site. Licensed providers include:

- East Coast Mine, Quogue, NY
- Tully Environmental *Co.* d/b/a Evergreen Recycling of Corona, NY
- Ascape Landscape, New City, NY

Structural Soil shall have the following composition:

1. The Structural Soil Mix shall have a moisture content of 10% (AASHTO T-99 optimum moisture).

2. The pH of the material shall be between 5.5 and 6.0

3. Gradation
   The structural soil material shall consist of three components mixed in the following proportions by weight:

   - Crushed Stone: 100 parts
   - Clay Loam: 20 parts
   - Hydrogel: 0.03 parts

A. Crushed Stone shall be granite or sandstone (no limestone shall be used) and shall be narrowly graded from 19 mm to 38 mm, highly angular with no fines and in the following proportions:

Sieve Size	Percent Passing by Weight
38mm	90 to 100
25mm	20 to 55
20mm	10

Contractor shall submit representative samples of crushed stone to a Testing Laboratory approved by the Engineer. Following testing, Contractor shall submit a sealed 10 kilogram bag of crushed stone with a test report from the Testing Laboratory to the Engineer for approval. The testing report shall include the following tests and recommendations:

1) Particle size
2) Losses and rodded unit weight
3) Bulk specific gravity
4) Soundness
5) Absorbance
6) Stone dimensions as per ASTM D4791 for crushed stone

C. Clay Loam shall meet the following requirements:

1) Not less than 25% or more than 30% of the clay loam by weight shall be sand. 100% of the sand

fraction shall pass the 2 mm sieve and 100% shall be retained by the 50 µm sieve.

2) Not less than 20% or more than 40% of the clay loam by weight shall be silt. The particle size distribution for the silt shall be 2 µm to 50 µm.

3) Not less than 25% or more than 40% of the clay loam by weight shall be clay. The particle size distribution for the clay shall include all particles smaller than 2 µm.

4) Not less than 2.75% or more than 5% of the clay loam by weight shall be decayed organic matter (humus) as determined by ASTM F-1647. If organic amendments are needed to obtain the specific organic matter content of the topsoil, the organic matter source shall be peat, composted leaves (leaf mold) or other approved organic amendments. Peat shall be sphagnum peat having ash content not exceeding 15%, as determined by ASTM D-2974. Leaf mold must be substantially free of sticks, stones, roots, plastic, glass, metal and other debris. One-hundred (100%) percent of the leaf mold must pass a 12.50 mm screen. The leaf mold chemical analysis shall conform to the following:

   a) The soluble salt content (conductivity) must be less than 150 MHOS per cubic meter for a 1:5 leaf mold to water ratio.

   b) The pH shall not exceed 6.8.

   c) The carbon/nitrogen ratio shall fall between 12:1 and 25:1.

   d) A fertility analysis (nitrate, phosphate, potassium, calcium and magnesium levels) must be provided for each batch of leaf mold as well as a trace nutrient content analysis with the following requirements:

TRACE NUTRIENT CONTENT

	ACETATE EXTRACT	HCL EXTRACT
Iron	0.5-5 ppm	≥ 5 ppm
Manganese	0.5-8 ppm	≤ 15.4 ppm
Molybdenum	0.5-1 ppm	≥ 1 ppm
Zinc	0.1-1 ppm	≥ 4.4 ppm
Aluminum	0.1-2 ppm	≥ 2 ppm
Boron	0.1-1 ppm	≥ 1.7 ppm
Copper	0.1-1 ppm	≥ 1 ppm

5) The Contractor shall submit representative samples to a Soil/Plant Testing Laboratory acceptable to the Engineer. Contractor shall submit a sealed 10 kilogram bag of clay loam with a test report from the Testing Laboratory to the Engineer for approval. The Contractor, as directed by the Engineer following review of the testing agency report shall correct deficiencies in the Clay Loam prior to mixing of the Structural Soil Mix proportions. Testing reports shall include the following tests and recommendations:

   a) Particle size analysis of the clay loam as determined by ASTM F-1632 shall be performed and compared to the USDA Soil Classification System.

   b) Percent (%) organic matter shall be determined by Loss on Ignition.

   c) Saturated hydraulic conductivity shall be tested and reported in mm per hour.

   d) Total porosity, capillary porosity and aeration porosity shall be measured.

   e) Chemical analysis shall be undertaken for Nitrogen, Phosphorus, Potassium, Calcium, Magnesium, cation exchange capacity, base saturation, percentages micro-nutrients, soluble salts and acidity (pH).

f) Soil analysis tests shall show recommendations for soil additives or fertilizers to correct soil deficiencies as necessary.

4. Geotextile Separation shall be synthetic and rotproof. The fabric shall be:

- AEF 480 HS as manufactured by American Engineering Fabric, Inc.
- 140 NL, as manufactured by Mirafi,
- FX40 HS as manufactured by Carthage Mills
- or approved equal.

5. The Hydrogel/Wetting Agent shall be potassium propenoate-propenamide copolymer hydrogel such as:
   - Gelscape, Amereq Corporation, NY
   - Soilmoist, JRM Chemical Inc., Clevelend, OH
   - Supersorb, Aquatrols Corporation, Cherry Hill, NJ
   - or approved equal.

6. Water - Shall comply with ASSHTO T26.

CONSTRUCTION DETAILS

Quality Control:

All Structural Soil shall be mixed by a licensed provider using appropriate soil measuring, mixing, and shredding equipment of sufficient capacity and capability to assure proper quality control and consistent mix ratios. Samples of the Structural Soil Mix scheduled to be brought to the site must be approved by the Engineer prior to delivery.

Structural Soil shall not be mixed or transported when rain is expected. Structural Soil components and finished mixtures shall be protected from excess water absorption and erosion at all times.

The sufficient quantities of material shall be mixed in advance of the time needed on site to allow adequate time for quality control testing. Structural Soil shall be stored in piles less than 400 cubic meters, and shall be protected from rain and potential erosion with plastic covering.

Mixing:

The hydrogel is added in a small amount to act as a tackifier, preventing separation of the stone and soil during mixing and installation. Mixing shall be done on a paved surface using front-end loaders. The stone shall be spread in a layer, the dry hydrogel is spread evenly on top and the screened moist clay loam is the top layer. The entire pile is turned and mixed until a uniform blend is produced. During the mixing process, the Contractor shall take two cubic foot quality control sample per maximum 20 cubic yards of mixed structural soil. Each sample will be tested by an approved Soil Testing Laboratory. Sealed sample and test results shall be submitted to the Engineer for approval. The structural soil is then placed and compacted in 6 inch lifts.

Crushed stone, soil, hydrogel, organic material, water, and any amendments necessary to meet the requirements of this specification shall be mixed prior to placement. Soil and leaf-mold shall be furnished by one supplier each or the same supplier. Changing suppliers during the Contract shall not be permitted. On-site work and off-site mixing shall be performed only during suitable weather conditions. Soil shall not be worked when frozen, excessively wet, or under otherwise unsatisfactory conditions.

Placement:

The soil mix shall not be installed until analyzed and approved by the Engineer. When placing structural soil material, it must be free of clods and must be protected from drying out. The mixture must not be over mixed causing the material to become pelletized.

The Contractor shall properly place the filter fabric without holes or tears so it overlaps adjacent pieces by a minimum of 12 inches in the tree pit areas.

Prior to placing pavement over structural soil, the Engineer shall check the consistency of the placed Structural Soil against the approved sample supplied by the Contractor. In the event that the material supplied varies significantly from the approved sample, the Engineer may request the Contractor test the installed structural soil. Any mix that varies significantly from the approved testing results, as determined by the Engineer, shall be removed and new Structural Soil shall be installed that meets the specifications. When the Engineer determines density tests are necessary and as required below, the Contractor shall provide any assistance required facilitate such tests. Such assistance shall include, but will not be limited to, excavation and backfill of test holes. This work shall be considered to be incidental. Where placed under pavers, sidewalks, walkways, promenades and bikeways, structural soil mix shall be compacted to a minimum 95% Standard Proctor Maximum Density. Structural soil shall not be placed under roadway pavements, structures, foundations, manholes, handholes, survey monuments and concentrated loads requiring long term uniform support.

Work shall be in accordance with the Standard Specifications.

METHOD OF MEASUREMENT

Payment for **Item 755: Structural Soil Mix** shall be at the contract unit price, per cubic yard, in place, furnished and installed in accordance with the plans and specifications or as directed by the Engineer.

BASIS OF PAYMENT

The unit bid price shall include the cost of furnishing all labor, testing, materials including hydrogel and equipment necessary to complete the work.

The unit bid cost will include excavation necessary to lines and grades shown on the plans for the installation of the structural soil mix.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions as applicable.

*** END OF SECTION ***

SEEDING

The work to be done under this item 765 shall conform to the relevant provisions of Section 765 of the Standard Specifications and the following:

The work shall consist of seeding the approved areas in close conformity with the lines and grades shown on the plans or established by the Engineer in the field.

The materials to be used in the work (limestone, fertilizers, plant materials, water for irrigation and soil conditioners) shall conform to Section 765.40 of the Standard Specifications.

The quantities of materials, rate of application of various items and the installation details shall be as described under Section 765, as shown on the plans or as recommended by the manufacturers and suppliers.

Payment for work under **Item 765: Seeding** shall be at the contract unit price, per Square Yard, in place and accepted by the Engineer. This price shall be full compensation for all labor, materials and equipment, including seed spraying, limestone, fertilizers, fine grading, rolling the seeded areas, watering, clearing the weed and all else incidental thereto and necessary for healthy grass areas without any bare spots or areas.

The measurement and payment provisions listed under Division One, Section 01025 shall supplement the above payment provisions, as applicable.

*** END OF SECTION ***

2 INCH ELECTRICAL CONDUIT TYPE NM - PLASTIC - (UL) (SINGLE)
3 INCH ELECTRICAL CONDUIT TYPE NM - PLASTIC - (UL) (SINGLE)
3 INCH ELECTRICAL CONDUIT TYPE NM - PLASTIC - (UL) (DOUBLE)

The work to be performed under these items shall conform to the relevant provisions of Section 800 of the Standard Specifications and the following:

The work shall include furnishing and installing three (3") inch non-metallic plastic conduit for traffic signal systems and two (2") inch non-metallic plastic conduit for telephone service connection in accordance with the plans and as directed by the Engineer. The conduit material shall be schedule 80 polyvinyl chloride (PVC) plastic conduit and shall be laid and covered in the trench with sand borrow as shown on the plans. Furnishing and installing all necessary or incidental couplings, reducers, fittings, and necessary incidental hardwire shall be included. A six (6") inch wide metallic detectable warning tape shall be used in conjunction with the installation of all conduit in lieu of an untreated wood plank.

The two (2") inch non-metallic plastic conduit for the telephone service connection shall be installed in the same trench as the (3") conduit for the overhead service connection and shall run from the traffic signal controller cabinet to the service utility pole. A one and one half (1-1/2") inch rigid metal conduit, type RM (Galvanized Steel), riser shall be provided for overhead telephone and power service drops. The riser shall extend ten (10'-0") feet up the service pole.

Conduit in Grass or in Planted Areas

Where new conduits are installed in grass and planted areas, work shall include placement of a minimum of four (4") inches of loam borrow, seed, and any other materials replaced in kind to restore disturbed areas to their original condition. Any existing plants (bushes, flowers, etc.) removed or damaged as a result of this project shall be replaced in kind. Conduit shall be installed within a bed of sand borrow and with a metallic detectable warning tape.

Conduit under Sidewalk or Median

Where conduit is installed in sidewalk or paved median areas, the work shall include excavating and backfilling of trenches, including necessary compaction. Conduit shall be installed within a bed of sand borrow and with a metallic detectable warning tape.

Conduit Crossing Roadways (Areas of Milling and Overlay)

Trenches in existing asphalt pavements not subject to full depth reconstruction or reclamation shall be sawcut to an 18" width. The existing pavements shall be sawcut through their full depth and the pavement removed.

After installation of conduit, sand borrow and metallic warning tape, the trench shall be backfilled with controlled density fill (CDF). CDF shall be Type 2E and shall be as specified in Section M4.08.0 of the Standard Specifications. If the existing roadway is to be milled and overlaid, the finished grade of the CDF shall be two (2") inches below the milled surface to allow a two (2") inch thick pavement patch to be installed over the trench prior to installation of the final surface course. If the existing pavement is to be resurfaced without milling, then the grade of the CDF shall be finished two (2") inches below the existing pavement surface and two (2") inch thick pavement patch to be installed over the trench.

Conduit Crossing Asphalt Driveways (Areas of Patching)

Trenches in existing asphalt driveways not subject to full depth reconstruction or reclamation shall be sawcut to a 42" width. The existing pavements shall be sawcut through their full depth and the pavement removed.

After installation of conduit, sand borrow and metallic warning tape, the trench shall be backfilled with controlled density fill (CDF). CDF shall be Type 2E and shall be as specified in Section M4.08.0 of the Standard Specifications. The grade of the CDF shall be finished four (4") inches below the existing pavement surface and a patch consisting of a two (2") inch layer of top course material over a two (2") inch layer of binder course material shall be placed over the trench.

Payment for work under **Item 804.2: 2 Inch Electrical Conduit Type NM - Plastic - (UL) (Single); Item 804.3: 3 Inch Electrical Conduit Type NM - Plastic - (UL) (Single); and Item 804.32: 3 Inch Electrical Conduit Type NM - Plastic - (UL) (Double)** shall be at the contract unit price per foot for the above-named items, which price shall constitute full compensation for all labor, materials, equipment, and incidentals including sawcutting, excavation of trench, controlled density fill, surface restoration to match the existing surface, installation of conduit, gravel borrow, sand bedding, backfill and compaction, continuous metallic yellow warning marker and wood planks necessary to complete the items 804.2, 804.3 and 804.32, as applicable, to the satisfaction of the Engineer.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions as applicable.

*** END OF SECTION ***

PULL BOX 12 INCHES x 12 INCHES - SD2.031
PULL BOX 12 INCHES x 24 INCHES

The work to be performed under these items shall conform to the relevant provisions of Section 800 of the Standard Specifications, the 1968 Standard Drawings for Traffic Signals and Highway Lighting and the following:

The work shall consist of furnishing and installing 12" x 12" or 12" x 24" pull boxes for electrical connections in sidewalk and planted areas. Where 3" interconnect or signal conduit enters a pull box, the bottom of the conduit shall be 30" beneath the finished grade. Where 1" to 1-1/2" loop lead-in conduit enters a pull box; the top of the conduit shall be 18" below finished grade.

12" x 12" pull boxes shall be constructed in accordance with MassDOT Standard Drawing SD2-031.

12" x 24" pull boxes shall be constructed in accordance with MassDOT Standard Drawing SD2-031, except the exterior dimensions shall be 20" x 32". Pull box castings shall conform to MassDOT Standard Drawing SD2-022.

12" x 24" pull boxes shall be one of the following:

1. Model No. HH 1224, with a 20" depth, as manufactured by Chase Precast Corporation, 70 East Brookfield Road, P.O. Box 187, North Brookfield, MA 01535

2. Model No. CBPB Short with a 20" depth as manufactured by Scituate Ray Precast, 120 Clay Pit Road, P.O. Box 636, Marshfield, MA

3. or approved equal as determined by the Engineer.

Compensation for furnishing and installing pull boxes listed in the *Major Items List* for Traffic Signal Reconstruction at the intersection of Granite Street, Copeland Street, Water Street and Garfield Street shall be paid for under the lump sum **Item 816.01: Traffic Control Signal Reconstruction.**

Payment for work under **Item 811.31: Pull Box 12 Inches x 12 Inches – SD2.031 and Item 811.324: Pull Box 12 Inches x 24 Inches** shall be at the contract unit price per Each, which price shall be full compensation for all labor, materials, equipment, casting frame and cover, and incidentals necessary to complete the work to the satisfaction of the Engineer.

The measurement and payment provisions listed under Division 1, Section 01025, shall supplement the above payment provisions, as applicable.

*** END OF SECTION ***

MAST ARM FOOTING COST ADJUSTMENT

The contract lump sum price for Item 816.01: Traffic Control Signal Reconstruction includes the cost of the mast arm foundation based on an assumed soil type for a three (3'-0") foot diameter foundation as shown on the plans.

Mast arm foundation depths under this Contract have been designed based on assumed soil types. Mast arm foundation depths as shown on the plans may be increased or decreased based on the actual existing soil types determined by the Engineer from soil borings taken under Item 816.01 of this Contract by the Contractor. If the Engineer determines that the soil classification requires the use of a deeper foundation, the Contractor shall construct the foundation at the dimensions shown on the Foundation Design Chart as included on the Plans and the Contractor shall be paid for the difference in depth at the contract unit price per foot for Item 815.981. Conversely, if the Engineer determines that the soil classification requires the use of a shallower foundation, the Owner shall be credited for the difference in depth at the Contract unit price per foot for Item 815.981. The difference in depth calculation shall be based on the dimensions shown on the Mast Arm Foundation Detail Sheet for a 3'-0" diameter foundation.

Payment (or credit) for work under **Item 815.981, Mast Arm Footing Cost Adjustment** shall be paid at the contract unit price per vertical foot of adjustment, which price shall include for all labor, material, equipment and incidental costs required to complete the work

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions as applicable.

*** END OF SECTION ***

TRAFFIC CONTROL SIGNAL RECONSTRUCTION

The work to be performed under this item shall conform to the relevant provisions of Section 800 of the Standard Specifications, the 2003 Manual on Uniform Traffic Control Devices (MUTCD), and the following technical provisions:

The work consists of furnishing and installing a new traffic control signal complete and ready for operation at the Granite Street/Copeland Street/Water Street/Garfield Street intersection, as shown on the plans. Included in the work is the furnishing and installing of traffic signal control equipment, controller, cabinet and foundation, signal housings, backplates, fire preemption equipment, removing and stacking of existing traffic signal equipment, LED signal displays, posts and bases, mast arms, anchor bolts and mast arm foundations, vehicle and bicycle loop detectors, saw cuts, ground rods, wire and cables, pull boxes, electrical connections, service connections, system modem, communication cable, telephone service and all appurtenances required to interface with the local intersection controller as well as providing all incidental materials necessary for operating and controlling the traffic control signals, as shown on the plans and specified. The traffic signal controller shall be as manufactured by *Eagle Traffic Control Systems*.

Within 30 days following execution of the Contract, the Contractor shall submit shop drawings for signal supports, a list of equipment, and manufacturer's equipment specifications to the Engineer in accordance with the relevant provisions of Section 815.20.

No work shall be commenced by the Contractor until approval of the shop drawings and manufacturer's data has been received in writing from the Engineer. Approval of these drawings will be general in character and shall not relieve the Contractor from the responsibility of, or the necessity of, furnishing materials and workmanship conforming to the plans and specifications.

The Contractor shall deliver to the Engineer a certificate of compliance with the manufacturer for all materials purchased from the manufacturer.

Shop Drawings and Catalog Cuts Requirements

1. Traffic signal equipment (catalog cuts)
2. Detector splices (catalog cuts)
3. Mast arm and foundation design
4. Mast arm hanger assemblies (catalog cuts)

All shop drawings and calculations shall be stamped by a Professional Engineer registered in Massachusetts.

Flashing Operation

Changes from automatic flashing to stop-and-go operation and from stop-and-go to automatic flashing operation shall occur as set forth in Section 4D.12 of the MUTCD.

Controller and Cabinet

The controller, malfunction management units, detector amplifiers, bus interface units and all other ancillary traffic signal control components included in the traffic control cabinet shall comply with the National Electrical Manufacturers Association (NEMA) Standard No. TS 2, Traffic Controller Assemblies.

The top of the concrete base for the control cabinet shall be 18" above grade.

TS 2 Type 2 Controller and TS 2 Type 1Cabinet Assemblies

Controller shall conform to Section 3, Controller Units of NEMA Standard Publication No. TS 2, Traffic Controller Assemblies. The controllers shall be supplied in an 8 phase TS 2 Type 2 configuration and cabinet assemblies shall be supplied in an 8 phase TS 2 Type 1 configuration. Controller shall utilize an input/output interface conforming to Section 3.3.1 of the NEMA TS 2 Standard for all input/output functions with the backpanel terminals and facilities, the malfunction management unit, detector rack assemblies and auxiliary devices.

The TS 2 Type 1 cabinet shall meet the requirements of configuration 3 as defined in Table 5.3.1-1, "Type 1 Configurations" of the NEMA TS 2 Standard. The cabinet shall be fabricated of sheet aluminum to size six (6) dimensions as specified in Table 7.3-1 of the NEMA TS 2 Standards.

The controller shall be capable of being operated in the full-actuated mode, in the free mode and as semi-actuated in the coordinated mode. The controller unit shall meet all applicable requirements of NEMA TS 2 Standard, Type 2, the Standard Specifications and the following:

a. The Controller Unit must be type-tested and approved by the Department.

b. The controller shall have hard-wire interconnect capability and internal time base coordination logic. The coordination control shall have the capabilities to operate as described under Section 815.41 of the Standard Specifications.

c. The controller shall have a data transfer/printer port for data transfer to another controller, printer or laptop PC computer. A port shall be provided for uploading or downloading controller operating parameters from a laptop PC computer.

d. The controller shall have a security code function.

e. The controller unit shall have an internal modem for closed loop communications.

f. The controller unit shall have internal fire preemption control capabilities.

The controller shall act as a communication hub between the City of Quincy specified remote computer station at the Department of Traffic & Parking and the local traffic controller. The controller shall allow for the flow of timing changes, event/alarm reporting and other data from the intersection to the remote computer station.

The controller shall communicate with the off-site monitoring and control computer station at the Department of Traffic & Parking Office via telephone line.

The controller shall be capable of implementing traffic responsive control, time base control, time of day control or remote control of operation.

The controller shall support two-way dial-up communications to the Department of Traffic & Parking remote computer station for control, monitoring, data collection and timing update purposes. Continuous seven days a week, 24 hours a day system monitoring shall be included within the controller. Automatic dial-up to the remote computer shall be initiated based on user-defined alarm/event conditions. The unit shall conform to all applicable portions of the Environmental and Operating Standards as described in NEMA Standard TS2-1998, Section 2.

The system shall have the capability of uploading system and timing data from the remote monitoring and control computer and downloading the data to each local controller unit.

The Contractor's attention is directed to Table 2, Required Signal Light Switching Assemblies, Section 815.41 of the Standard Specifications. The Contractor shall furnish the appropriate type and number of load switches and place unutilized load switches in the control cabinet for future use. Load relays shall be easily replaced using a screwdriver. Component relays requiring soldering are not acceptable.

In addition to the convenience outlet as described under Subsection 815.41, a lamp with an on/off switch shall be installed in the controller cabinet.

System Telephone Service

The Contractor shall make arrangements with the telephone company via the Department of Traffic & Parking Office to provide telephone service to the controller cabinet at the Granite Street/Copeland Street/Water Street/Garfield Street intersection. The telephone service connection shown on the plans is approximate only. The Contractor shall determine the exact location from the servicing utility, arrange to complete the service connection, and be responsible for all charges incidental thereto. A standard analog phone line and RJ11 plug-in service outlet shall be installed inside the same cabinet as the controller. The telephone line shall be installed in such a way as to allow the controller to communicate with the remote computer station via a modem.

The Contractor shall coordinate the installation of the telephone service between the local controller cabinet and the telephone utility source using the proposed signal conduit as shown on the plans and according to specifications of the telephone company. Telephone service components shall be completely separate and isolated from the electrical service for the traffic signal controller cabinet. Enough telephone wire shall be coiled above the riser to permit the local telephone company to make the connection to service wires on the utility pole.

Fees

The Contractor shall be responsible for all monthly fees up to the month of the final inspection and all fees from the telephone company for this related telephone service.

The telephone service for the remote computer system shall be supplied by the City of Quincy. It shall be the Contractor's responsibility to connect the telephone line provided to the remote station and make operational the remote computer station to the controller communication link.

System Modem - External

The controller at the intersection of Granite Street/Copeland Street/Water Street/Garfield Street intersection shall be supplied with a separate shelf-mounted modem which shall provide full duplex operation using a 2-wire dial-up telephone line. The modem shall comply with Part 68, FCC docket 19528 and be capable of supporting a minimum of 26 data rates including 300, 1200, 2400, 4800, 9600, 12000, 14400 and 33600 bps. The modem shall be model SM336SA as manufactured by GDI Communications, LLC and be capable of asynchronous and synchronous data transfers.

Originate, manual or auto answer operating modes shall be provided. The modem shall have a line resistance of 600 ohms ± 10% transformer coupled and transient protected. The modulation shall be frequency shift keying (FSK) for low speed with a carrier detect sensitivity of -11 dbm ± 2 db.

The modem shall provide an auto disconnect function that will disconnect the modem due to a lack of carrier for approximately 18 seconds. The front eight diagnostic LEDs shall reflect operational status of the following functions:

- Power (On/Off)
- Transmit Data (TXD) - Indicates data is being transmitted.
- Receive Data (RXD) - Indicates data is being received.
- Data Terminal Ready (DTR) - Indicates Data terminal Ready is true.
- Data Set Ready (DSR) - Indicates Data Set Ready is true.
- Off Hook (OH) - Indicates OFF Hook condition.
- Data Carrier Detect (DCD) - Indicates that modem is detecting a carrier.
- Ring Indicator (RI) – Indicates that modem is receiving a ring signal.

A power on/off switch shall be mounted on the modem along with an RS-232 connector and a RJ-11 telephone jack.

The modem shall have an operating temperature range of -30°C to +70°C at a maximum humidity of 95%.

The modem shall operate from 95 to 130V AC (60 Hz) with power supplied from the controller cabinet duplex outlet.

A second separate GFI protected duplex outlet shall be supplied in the controller cabinet and mounted on the side wall for servicing power requirements of the controller and the modem.

Computer Equipment for Closed Loop Monitoring System

The Contractor shall use a computer provided by The City of Quincy at the following location for use with the Closed Loop Monitoring System:

City of Quincy
Department of Traffic & Parking
55 Sea Street
Quincy, MA 02169

System Software

The system software shall provide remote user interface and monitoring of the local controller unit via the remote computer station in accordance with these Special Provisions. It shall have the capability of monitoring the operation of the system and the performance of any intersection in the system. It shall have the capability of downloading system and timing information from the remote computer station to the local intersection. It shall also have the capability of requesting an upload of system and timing data from the local intersection controller.

The system software to be supplied shall be compatible with the local controller under this contract.

For the specified computer station, the Contractor shall furnish and install one set of compact disks containing the fully debugged and operational system software. One complete set of system software shall be supplied and licensed to the City of Quincy for their respective computer station.

The remote computer station will be used for remote monitoring and control. Actual control of system parameters such as cycle, split, offset and TOD programs will be handled by the local controller when under closed loop system control.

System control shall not be affected by having the remote computer station ‘Off Line”. The commands available to the operators at the remote computer station shall be the same as those on the front panel of the local intersection controller except for communications functions such as unit address definitions.

System software shall enable the system user to upload and download information from the local controller unit to the remote computer station.

Once a communication link is established between the remote computer and the local controller unit, that link will remain active until it is terminated by the computer operator. The transfer of data between field and remote hardware will not affect system or local signal operation.

The computer shall have the ability to print out, store on disk or display on screen all programmable system data.

The computer operator shall have the option of downloading or uploading groups of data resident in the field equipment or the entire units database. Sample data groups include timing data, coordination data, pre-emption

data, detector data, alarms/events reports, and malfunction management unit data. In addition, the operator shall have the ability to compare uploaded data with data previously resident in the computer through software instructions.

Operator Interface and File Management

The computer station shall utilize the keyboard and monitor as the primary interface between the operator and the system. The interface display shall include as a minimum the current time and data and a reference to the date being displayed. The interface display shall also display a reference that designates the intersections, cross streets, municipality, and system selection.

All terminology used in the system and the displays shall utilize standard traffic engineering terminology.

A menus interface approach shall be utilized with appropriate prompts to allow a non-computer skilled operator using keyboard and mouse inputs to run the system. The menu structure shall allow the operator to select a menu option by pointing with the mouse or by entering a letter or number designation of the selection.

The menu interface shall use both alpha and numerical references to subsystems, intersections, detectors, phase designations and communications links. This information will be placed into the data base by the Contractor when the files are created.

A log shall automatically be kept at each computer console tracking system access by user, time and date stamped, describing data transfer operations performed.

The Contractor shall produce an intersection map for the purposes of monitoring system status. This map shall be loaded into the remote computer station, and shall be linked to real time data allowing for a dynamic representation of system status for the operator. Project plans shall be used as the paper base for the map. It will be necessary for the Contractor to manually produce the required electronic intersection map. The map shall be custom produced for the system intersection representing the unique geometric configuration and lane pattern. The use of typical intersection map files shall not be allowed unless it accurately represents the intersection to be monitored. At a minimum the intersection map shall contain the following information:

- Graphical representation of the intersection (scaled maps are not required)
- Municipality (City of Quincy)
- Street Names
- System Name
- North Arrow (Pointing up)
- Lane Configuration
- Signal Display Status (Vehicle and Pedestrian)
- Detector Call Status
- System Parameters Status (cycle, split, offset)
- Intersection Operational Status (flash, coordinated, free, on-line, preemption)
- Time/Date

The computer station shall be capable of supporting a system database, maintaining resident files of configuration data for the local intersection. The files shall be utilized to review configuration data without on-line activities, serve as a baseline for modification prior to downloading new configuration parameters, or as a reference for comparison with uploaded configuration data.

Intersection and system parameters shall be displayed in a tabular form with forward and back paging capability. Each of the displays shall closely reflect terminology, form and content of the same data displayed on the front panel of the local intersection controller.

The system software shall allow the operator to monitor signal operation on an intersection or system level. In addition, the system software shall be capable of automatically generating reports in response to the existence of a

malfunction or marginal operating condition. The system software shall be capable of outputting reports to both the monitor and the printer and shall be capable of storing the reports on disk.

The system software shall have the capability of initiating a pager call from the local controller to a remote computer station. It shall be possible to program at least two different computer system telephone numbers into the local controller such that a call from the local controller to a particular system computer station would be user defined by time-of-day/day-of-week programming. This time programmable upload feature will not inhibit monitoring/data download access from any remote computer station.

The required reports, as described in the following sections, shall contain the specified data at a minimum. Report format and content shall be approved by the Design Engineer and City of Quincy Department of traffic & Parking.

Reports

The remote computer station for the City of Quincy Department of Traffic & Parking shall be capable of receiving and storing system performance reports. This computer station will receive all non-failure related reports at a predetermined time each day. In addition, all system failure reports will be uploaded immediately to the computer station.

The following section describes the minimum system report requirements along with their uploading assignments for the City of Quincy Department of Traffic & Parking.

Legend as follows:

(D) Daily Report - Report uploaded everyday to the computer station at a predetermined time. Report stored in memory and printed out on the printer.

(I) Immediate Report - Report uploaded to the City of Quincy Department of Traffic & Parking computer station immediately. Report stored in memory and printed out on the printer.

(O) Operator initiated reports. Available on request from the computer station.

The system software shall have the capability to be programmed such that if the system software is not in the monitoring mode at the specified time for daily reporting then it shall automatically revert to the monitor mode and remain there during the entire reporting period and until other functions are activated by the operator. This feature shall be in effect for the computer station at the City of Quincy Department of Traffic & Parking with the specified time set at 11:45 PM daily.

Should paper run out at the computer's printer, report operation should continue uninterrupted with data being stored in computer memory only.

Local Controller Reports

The local controller shall be capable of reporting, as a minimum, the following:

a. Local power on/off (I)
b. Control cabinet door opened (I)
c. Conflict monitor fault detection (I)
d. Local detector failure (I)
e. Local controller keyboard access (I)
f. Local controller failure (I) (D)
g. Pre-empt operation (O)
h. Local detector logging (volume, occupancy) (O)
i. Local speed logging (O)

Local Detector Logging

The local intersection controllers shall be capable of uploading to a remote computer station detector volume and occupancy data. The local volume sampling period shall be user selectable in 15, 30 or 60 minute groupings. It shall be possible to enable and disable detector logging on a time-of-day/day-of-week basis. All detector logs shall be time and data stamped.

Initial settings of 60 minutes shall be used for all system detectors.

Detector volume and occupancy logging shall be organized and displayed in both graphical and tabular form. It shall be possible to download historical data to floppy disk for future analysis. At the local intersection controller, the oldest detector logs shall be replaced first if memory overflows.

System Access

A security code capability shall be in place at the remote computer station. This code comprised of the operator's name and a personal password shall prevent any change to the data or to the mode of operation unless a proper security code is first entered. The security code access in the system shall assign each user varying degrees of privileges. The lowest privilege shall allow that person to monitor system operation only followed by monitoring and control capabilities up to the highest privilege which includes all lower privileges and have the capability to add, change or delete user privileges.

A log shall be kept by the system of the time and date of all access to the system. The system shall provide a log report upon request. The log shall be capable of storing as a minimum, the last 100 persons to log in their access code.

Security access shall automatically be rescinded a set time after access was gained or the last parameter change was entered.

System Database Documentation

Once the system has been installed, inspected, and fine tuning adjustments have been made to system parameters, the Contractor prior to final acceptance of signals, shall produce 2 hard copies of the entire system database and insert the copies into three-ring binders (supplied by the Contractor) to be kept at the remote computer station. The database shall reflect all changes made in the field during construction.

Bus Interface Units

The Bus Interface Unit (BIU) shall comply with Section 8 of the NEMA TS 2 Standard. The BIU shall be fully interchangeable with any other manufacturer's unit and interchangeable in a NEMA TS 2 Type 1 cabinet assembly. In addition to the number of BIU' s required for the detector racks, and terminals and facilities, two (2) spare Bus Interface Units shall be supplied with each controller cabinet.

The BIU shall perform the interface function between port 1 at the controller unit, the malfunction management unit, loop detector rack assembly, and the backpanel terminal and facilities.

As a minimum, two LED indicators shall be provided on the BIU front panel. One indicator shall serve a dual use; as a power on indication and as a diagnostic indicator for proper operation of the device. The second indicator shall serve as a transmit indicator illuminating each time data is transmitted.

TS 2 Cabinet Power Supply

A separate power supply shall be supplied and installed in each TS 2 cabinet. The unit shall be AC line powered and shall provide regulated DC power and unregulated AC power as well as a line frequency reference for the rack mounted loop amplifiers, bus interface units, load switches and other auxiliary cabinet equipment as required. As a minimum, the power supply shall meet all requirements of Section 5.3.5 of the NEMA TS 2 Standard.

The power supply shall be either shelf mounted or wall mounted utilizing keyhole slots for ease of replacement or installed as part of the rack assembly.

Malfunction Management Unit

The malfunction management unit (MMU) shall comply with Section 4 of the NEMA TS 2 standard. The MMU shall be capable of operating as either a Type 16 with 16 channels (8 vehicle, 4 pedestrian, 4 overlap) or a Type 12 with 12 channels (8 vehicle, 4 overlap). The MMU's supplied shall be configured to operate as Type 16 units.

The MMU's in either the Type 16 or Type 12 configuration shall be capable of operating in a NEMA TS 2 Type 1 cabinet or a NEMA TS 1 cabinet without loss of functionality.

Spare Load Switches and Flash Transfer Relays

In addition to the twelve (12) load switches and six (6) flash transfer relays required for the occupied and unoccupied sockets in the control cabinet, an additional full complement of load switches and flash transfer relays shall be provided. The full compliment shall include an additional twelve (12) load switches and six (6) flash transfer relays in accordance with configuration 3 as defined in Section 5, Table 5.3.1-1, "Type 1 Configurations" of the NEMA TS 2 Standard.

Enhanced Surge Protection

Surge protection shall be provided within the controller cabinet for vehicle/bicycle loop detection, Opticom emergency preemption and all other controller cabinet equipment. In general, surge protection shall be provided where field wiring terminates to terminal or panel strips within the controller cabinet.

Surge protection modules shall be manufactured by EDCO Inc, Ocala, Florida or Lightning Master Corporation, Clearwater, Florida. Surge protector modules shall provide damage protection to controller cabinet equipment (controller unit, BIU, MMU, detector amplifier, optical phase selector, etc,) due to over voltage transients, including lightning. Surge protection modules shall be of the type that plug into a standard female terminal connector. When snapped together, the data circuits "pass thru" the protector in a serial fashion from the male "Field Side" terminals to the female "Electronics Side" terminals.

Testing of Grounding System

The Contractor shall perform testing of the equipment grounding system in the presence of the Engineer in accordance with the Standard Specifications. A minimum of two (2) ground rods shall be installed with each controller cabinet installation. One ground rod shall be installed in the controller cabinet and a second in an adjacent pull box located a minimum of ten (10) feet from the cabinet.

Data Base Programming

Each programmable local hardware component (controller, malfunction management unit, and detector amplifier) shall be initially programmed by the Contractor based on information contained on the plans. Three (3) sets of hard copy programming per device shall be supplied and stored in each controller cabinet. Programming should be checked at the time of the final inspection, which is required by the City of Quincy Department of Traffic & Parking.

Equipment Finish and Color

All traffic signal equipment including but not limited to signal posts, bases, signal heads, visors (outside), doors, mast arms, pushbutton saddles, controller cabinets, service meter socket boxes, optical preemption detectors, hardware, and rigid mounting brackets for signals and signs shall be the color **Gloss Black** which shall match color number 27038 of Federal Standard 595B "Colors Used in Government Procurement." The inside of visors shall be flat black in accordance with Federal color number 37038. The Contractor shall submit to the Design Engineer for approval, paint chips and sample finishes on aluminum and steel of the intended color prior to any work being done under this heading.

Signal heads, doors, visors, mounting brackets, and hardware supplied direct from the manufacturer in the color stipulated above may be acceptable provided it meets or exceeds the finish process for the material indicated below.

Galvanizing (Steel Equipment Only)

Prior to galvanizing any steel components, the applicator shall ensure that all components are smooth and without sharp protrusions that would present an injury hazard to pedestrians. Also, the fabricator shall ensure that all welds shall be cleaned thoroughly in accordance with good practice and according to AWD D1.5 and ASTM A123-89a and shall have a suitable surface to accept the galvanizing.

All structures shall be hot-dip galvanized to the requirements of either the current revision of ASTM A123 (Specification for Zinc Coatings on Iron and Steel Products) or the current revision of ASTM A153 (Specification for Zinc Coating on Iron and Steel Hardware).

All bolts, screws, nuts, rods and washers shall be galvanized in accordance with AASHTO M232 and the Standard Specifications. The hardened machine screws may be electroplate galvanized. Stainless steel studs, bolts, screws, nuts, straps and washers shall not be galvanized. Galvanized hardware need not be painted; however, the ends of bolts, nuts, and washers shall be painted in the field according to section "Touch-up and Repairs." Immediately prior to galvanizing, the steel shall be immersed in a bath of zinc ammonium chloride. The dry kettle galvanizing process shall be used.

All steel components, other than above, shall be galvanized after fabrication in accordance with AASHTO M111. The galvanizing bath shall contain nickel (0.05% to 0.09% by weight) in accordance with subsection 960.61 of the Standard Specifications.

Galvanized members requiring shop assembly shall be welded and drilled prior to galvanizing.

Should any repairs be required, they shall be done so in accordance with the current revision of ASTM A780 (Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings).

Powder Coating (Steel & Aluminum Equipment)

1. **General**

   The powder coat finish shall consist of an epoxy primer with a polyester-TGIC (triglycidyl isocyanurat) resin top coat. The powder coat shall conform to color and gloss retention as specified by American Architectural Manufacturers Association (AAMA) publication 2604-05.

2. **Surface Preparation**

   Galvanized surfaces shall be prepared for painting by sweep blasting to the current revision of ASTM D6386 (Standard Practice for Preparation of Zinc Coated Iron and Steel Product and Hardware Surfaces for Painting) requirements utilizing cast steel abrasives conforming to the Society of Automotive

Engineers (SAE) Recommended Practice J827. The blast method used shall be a recirculating, closed cycle centrifugal wheel system with abrasive conforming to SAE Shot Number S280.

The prepared surface shall have a minimum 1.5 mils anchor profile as indicated by a Keane Tator Profile Comparator or similar device. The creation of the anchor profile shall be performed prior to the formation of "white rust" on the galvanized surface.

3. Prime Coat

All exterior surfaces shall be prime coated with epoxy powder to a minimum dry film thickness (DFT) of 3.0 mils, with the bottom 8'-0" of the pole shaft having a minimum dry film thickness (DFT) of 6.0 mils. The powder shall be electrostatically applied and partially cured in a gas fired convection oven.

4. Top Coat

The primed exterior surface shall be coated with polyester-TGIC powder resin to a minimum dry film thickness (DFT) of 6.0 mils (.006"). The powder coat shall be electrostatically applied and cured in a gas fired convection oven. The powder resin shall be thermoset so as to provide both intercoat and substrate adhesion that meets classifications 5A and 5B of ASTM D3359 (Standard Test Methods for Measuring Adhesion by Tape Test).

5. Packaging

Special precaution should be taken to ensure that the finished structures are not damaged in any way during shipping. Small poles shall be wrapped in 0.125" thick, ultraviolet-inhibiting, plastic backed foam. Larger poles shall be protected at the dunnage points on the truck.

6. Touch-up and Repairs

Should any damage occur to the galvanized coating during shipping or handling at the job site, the Contractor shall repair and touch-up any damaged areas in accordance with the current revisions to ASTM 780 (Practice for Repair of Damaged and Uncoated Areas of Hot Dip Galvanized Coatings) to the satisfaction of the Engineer.

Field touch-up procedures shall conform to the recommendations of the manufacture. The Contractor shall also use the touch-up procedures for coating galvanized hardware used in field erection that has not been finish coated previously.

7. Warranty

A five (5) year warranty shall be provided for labor and coatings. Color and gloss retention shall be maintained for a minimum of five (5) years regardless of high sun exposure, exposure to high ambient salt and liquid de-icing agents.

Mast Arm Structures and Foundations

Mast arm structures shall be galvanized steel and shall conform to the provisions of M8.18.4. Mast arm structures shall be fabricated by the suppliers approved by MassDOT. Mast arm structures shall be monolever type. All signal heads and signs on the mast arms shall be fixed mounted. Shoe type bases shall be used.

Shop drawings and long hand calculations shall be submitted for the mast arm structures. The foundation shall be as shown on the MassDOT Standard Drawing included in the plans and shall be constructed in conformance with Section 801.62 of the Standard Specifications. All shop drawings and calculations shall be stamped by a Professional Engineer registered in Massachusetts. The top of all foundations in sidewalk areas shall be located four (4") inches below finish grade.

The Contractor's attention is drawn to the fact that core footings shall be provided for the mast arm foundations. The Contractor shall provide a drive sample boring with a rock core at the location of each mast arm foundation shown on the plans. Each boring shall be taken to a depth of 10 feet, as a drive sample boring, unless rock is encountered above this depth, in which case, the boring shall continue as a core boring for 5 feet into rock. Boring's and boring reports shall conform to the relevant provisions of Section 190.61, 190.63 and 801.62 of the Standard Specifications. Boring reports shall indicate the ground water level observed and where the boring was taken. A 1”=20’ scale plan shall be provided to the Design Engineer indicating the location of each boring and boring number. The Contractor shall notify the Engineer at least five working days in advance of the time he intends to take the borings. The Boring Contractor shall be subject to the approval of the Engineer. Upon receipt of the boring reports, shop drawings, and the design calculations for the mast arm structures, MDM Transportation Consultants, Inc. will confirm or revise the mast arm foundation depth.

Foundations shall not obstruct a sidewalk or crosswalk so that passage by physically-challenged persons is not impaired.

The standard mast arm pole foundation (SD3.040) shall be modified to a concrete cored foundation as shown on the Standard Drawings for 35-foot Type II Mast Arm Cored Pier Foundations included in the plans. Based on assumed soil types shown on the Foundation Design Chart, the mast arm foundations for the 20 foot and 35 foot mast arm shall be approximately 3’-0” in diameter and 6’-0” deep and 8-9” deep, respectively. Cement concrete for mast arm foundations shall be 4000 psi, 3/4 inch, 610 cement concrete masonry.

Mast Arm Sign Hanger Brackets

Sign hanger brackets for mast arms shall be used in all locations where a sign is to be mounted to the mast arm. Mast arm sign hanger brackets shall consist of a mast arm clamp assembly cast from 356-T6 aluminum alloy or equivalent, vertical support tube extruded from 6063 aluminum or equivalent, stainless steel bands, clamp screw, hardware and all miscellaneous materials necessary to fix mount the sign to the mast arm.

The sign hanger bracket shall be universally adjustable capable of making horizontal, vertical and 360 degree rotational adjustments so that any sign mounted on a mast arm can be adjusted to provide proper alignment and sight perpendicular to the flow of traffic.

Vertical support tubes shall be of sufficient length to allow mounting of the sign to within three (3”) inches of the top and bottom of the sign.

Backplates

Backplates shall be aluminum with a louvered profile. Backplates shall have a five (5”) inch border width and a dull flat black color. Only backplates that are listed in the latest MassDOT “Approved Equipment List” will be used on this project.

Labels

All time settings, switches, harnesses, relays, terminals and fuses shall be clearly and permanently labeled.

Vehicle Signal Heads

All vehicle signal housings shall be aluminum. When in the judgment of the Engineer the visibility of proposed signal faces will be obstructed by trees and other vegetation, the Contractor shall clear the obstructions for proper sight distance. Any clearing necessary shall be done within the State, County or Town layout, as directed by the Engineer.

Pedestrian Signal Heads

All pedestrian signal housings shall be aluminum and fitted with 16" countdown pedestrian signal modules and tunnel visors. The signal module shall consist of international symbols of an LED upright hand symbolizing "Don't Walk" and a walking person symbolizing "Walk". The internal countdown module shall be comprised of two segment digits, nine inches (9") high and meeting the requirements of ITE PTCSI – STD Part 2 as adopted in March 2004. The countdown module shall display the number of seconds remaining throughout the entire pedestrian clearance phase, and blank out when not activated. No countdown display shall be shown during the walk interval. The countdown module shall be automatically set by the intersection controller based upon the Walk and Don't Walk signal indications only. The countdown module shall continuously monitor the intersection controller for any changes to the pedestrian phase timing and reprogram itself automatically. If the pedestrian change interval is interrupted or shortened as part of a transition into a preemption sequence, the countdown pedestrian signal display shall be discontinued and go dark immediately upon activation of the preemption transition. All LED indications on the pedestrian signal shall have an automatic dimming circuit for night illumination to reduce long-term degradation to the LED's.

A written warranty shall be provide for repair or replacement of modules that fail to function as intended due to workmanship or material defects within the first 60 months from date of the final inspection. Modules which exhibit luminous intensities less than the minimum (50%) as specified in the ITE specifications indicated above within the first 60 months shall be replaced or repaired.

All pedestrian signal heads shall be mounted so that there is a minimum of twenty four inches (24") between any part of the housing or visor and the outer face of the curb.

Posts and Bases

Pole and base shall conform to Section 815.44 of the Standard Specifications and the following:

A. All signal posts shall be aluminum with cast pedestal bases supplied as single piece units. The signal piece aluminum pole and base shall be as manufactured by Alloy Castings Company, Inc., East Bridgewater, MA or approved equal

B. Signal post foundations shall be precast concrete foundations.

C. All necessary anchor bolts and nuts, wire entrances, pole caps and any miscellaneous materials necessary for the complete installation of the signal posts shall be included.

Pedestrian Pushbutton, Instructional Sign and Saddle

Pedestrian pushbuttons shall be installed on a saddle of cast aluminum with the approved MassDOT instructional legend, as shown on the plans, part of the casting. The saddle shall have a clear coat finish and the legend shall be painted black. This sign and saddle shall be used in locations where a pushbutton is shown on the plans.

The plunger shall be a maximum of 42 inches above the finished sidewalk and a minimum of two (2") inches in the smallest dimension. The force required to activate controls shall be no greater than five (5 lbf.) pound-feet. The sign and saddle shall be used in locations where a pushbutton is shown on the plans.

Red, Amber and Green LED Vehicle Signal Modules

All Red, Amber and Green signal housings with the exception of optically-programmed and fiber optic housings shall conform to the following:

The LED signal module shall conform to "Interim LED Purchase Specification of the Institute of Transportation Engineers, Vehicle Traffic Control Signal Heads - Part 2: Light Emitting Diode (LED) Vehicle Traffic Signal Modules", July, 1998, or most current version, Institute of Transportation Engineers (ITE), 525 School St., S.W., Suite 410, Washington, DC 20024-2797, Telephone: (202) 554-8050, FAX: (202) 863-5486, and shall conform to the following: (In the case of a conflict, the following special provision shall overrule.)

An independent laboratory shall certify that the LED signal module complies with Section 6 Quality Assurance of the above stated ITE LED Purchase Specification.

LED signal modules must be type-tested and approved by the Department according to the requirements of Subsection 815.21 of the Standard Specifications for Highways and Bridges.

On the backside of the LED signal module there shall be a permanently marked "up" arrow to aid in the proper orientation of the module during installation.

The manufacturer's name, trademark, serial number and other necessary identification shall be permanently marked on the backside of the LED signal module.

1. **Physical and Mechanical Requirement**

   LED signal modules shall fit without modifications into existing traffic signal housings conforming to "Vehicle Traffic Control Signal Heads" (VTCSH) published in the Equipment and Materials Standards of the Institute of Transportation Engineers. The LED signal module shall be a single, self-contained device, not requiring on-site assembly for installation. The LED signal assembly construction shall conform to the applicable ASTM specifications for the materials used to fabricate the module.

   Each red LED signal module shall comprise a smooth surfaced Red, UV stabilized polycarbonate outer shell, multiple LED light sources, a power supply and a polycarbonate back cover assembled in a gasketted or silicon sealed unit.

   Each green LED signal module shall comprise a smooth surfaced Green, or transparent, UV stabilized polycarbonate outer shell, multiple LED light sources, a power supply and a polycarbonate back cover assembled in a gasketted or silicon sealed unit.

2. **Optical and Light Output Requirements**

   The minimum luminous intensity values and light output shall be maintained within the rated input voltage of 117 Volts AC. LED signal modules shall not be allowed to fall short of the minimum intensity values at any of the 44 measuring points of the standard when lamp is turned on cold for measurements and after a 30 minute warm-up time period at 100% duty cycle.

3. **Electrical**

   The maximum wattage shall be 20 Watts for 12" balls and 10 Watts for 12" arrows.

   The LED sources shall not be powered above 70% of the manufacturer's specified rated load. This shall be clearly shown in layman's terms through calculations, schematics, catalogue cuts, etc.

   Red LED sources shall be made of the AlInGaP (Aluminum Indium Gallium Phosphide) type shown clearly in a catalogue cut or similar literature.

   Green LED sources shall be made of the InGaN (Indium Gallium Nitride) type shown clearly in a catalogue cut or similar literature.

4. **Warranty**

   The LED signal module will be replaced or repaired by the manufacturer if it exhibits a failure due to workmanship or material defects within the first 60 months of field operation.

The LED signal module will be replaced or repaired by the manufacturer if it exhibits either a greater than 40 percent light output degradation or a fall below the minimum intensity levels within the first 36 months of field operation.

Global Positioning Satellite (GPS) Receiver and Antenna Module

1. **General**

GPS Receiver and Antenna Module shall be provided for use in synchronizing the time clock in traffic signal controllers. The GPS Receiver and Antenna Module shall be Model GPS 16 HVS as manufactured by Garmin International, Inc., 1200 East 151st Street, Olathe, KS.

2. **Physical Requirements**

The GPS Receiver and Antenna Module shall be constructed of polycarbonate thermoplastic approximately three and a half (3.6") inches in diameter and one and a half (1.6") inches in height. It shall be waterproof to IEC 60529 IPX7 level (immersion in one (1) meter of water for 30 minutes) and be capable of operating in temperatures ranging from -30°C to 80°C.

The GPS Receiver and Antenna Module shall be equipped with two (2) serial interfaces compatible with RS-232 or TTL voltage levels and RS-232 polarity. The receiver to interface connector cable shall be a minimum of 15 feet in length and shall consist of a foil shielded, 8-conductor 28 AWG cable with RJ-45 termination and a PVC jacket.

3. **Electrical Requirements**

The GPS Receiver and Antenna Module shall operate with an input voltage of 8 to 40 Vdc unregulated and with an input current of 60mA @ 8 Vdc, 40 mA @ 12 Vdc and 15 mA @ 40 Vdc. It shall have a minimum sensitivity of -165 dBW.

4. **Performance Requirements**

The GPS Receiver and Antenna Module shall feature 12 channels and be capable of tracking a minimum of 12 satellites at a time. It shall be capable of providing FAA Wide Area Augmentation System (WAAS) differential GPS with an update rate of 1 to 900 seconds between updates and programmable in 1 second increments. It shall be capable of operating in 999 knots and under 6 times the force of gravity. Acquisition times shall be as follows:

Initial (no data known)	5 minutes
Reacquisition	< 2 seconds
Warm (all data known)	15± seconds
Cold (initial position & time known)	45± seconds

The accuracy of the GPS Receiver and Antenna Module shall conform to the following parameters:

	Position	Velocity
GPS	<15 meters, 95% typical	0.1 knot RMS steady state
DGPS (USCG)	3-5 meters, 95% typical	0.1 knot RMS steady state
DGPS (WAAS)	<3 meters, 95% typical	0.1 knot RMS steady state

The serial interfaces shall have used selectable baud rates of 300, 600, 1200, 2400, 4800, 9600, 19200 or 38400 with a PPS output of 1 Hz pulse, programmable width and 1 microsecond accuracy.

Wiring and Service Connections

Traffic signal cable shall be of Type 2, 14 gauge, 10 conductor. All systems shall have a minimum of one (1) ten (10) conductor cable for each vehicle phase, overlap phase and pedestrian phase for controller outputs to field wiring required by the timing and sequence plan. A minimum of five (5) spare conductors shall be provided in the base of each signal post and mast arm pole. Openings, where cables enter the base of a cabinet, shall be sealed with an approved elastic sealing compound. The open ends of conduits entering or leaving mast arms, posts and pull boxes shall also be sealed with the approved elastic sealing compound.

The work for service connections shall consist of furnishing and installing all materials and equipment to deliver power to traffic signals and related electrical systems. All service connections to the power source shall be made by the Electric Company as stipulated under "Notice to Owners of Utilities".

Optical Fire Preemption System

The work consists of furnishing and installing optical traffic signal preemption systems ready for operation, as described herein and shown on the plans. Included in the work is the furnishing and installing of traffic signal preemption unit and related equipment, optical detection equipment and all necessary connections to the traffic signal controller. The fire preemption system shall be OPTICOM Priority Control System Series 700 equipment manufactured by Global Traffic Technologies (or approved equivalent) and installed in the same cabinet as the controller.

The fire preemption system shall consist of a data-encoded phase selector to be installed within the existing control cabinet. This unit will serve to validate, identify, classify, and record the signal from the optical detectors located on support structures at the intersection. Upon receiving a valid signal from the detector, the phase selector shall generate a preempt call to the controller initiating a preemption operation as shown on the plans.

The phase selector shall be a rack-mounted plug-in two channel, dual priority device. Programming the phase selector shall be via a PC-based computer utilizing unit specific software. One copy of software on a disk shall be supplied and licensed to the Town as part of this Contract. A hard copy of final programming data shall be left in the control cabinet. The Contractor shall supply a complete set of interface cables for phase selector to laptop connection.

Emergency vehicles equipped with optical energy emitters transmit optical energy impulses to optical detectors mounted at the intersection. When optical energy impulses are received at the intersection, control of the signals shall transfer from the controller to show a selected display shown on the plans to assist the vehicle through the intersection without conflict. After the vehicle has passed through the intersection, control of the signals shall then return to the controller which shall restore the appropriate timings that were in effect prior to preemption.

1. **General Operation and Description of Work**

   The following description of work specifies the responsibilities involved in the installation of optical preemption equipment.

   The Contractor is required to supply material and labor, required or shown for the complete installation of optical preemption equipment at the specified location in this project. Intersection preemption equipment required includes optical detectors, phase selectors, system chassis, preemption indicator lights, cable, interfacing of preemption equipment to the controller, making electrical connections and all required incidentals.

The following are the operational requirements of the optical preemption system:

- Operating sequence, as specified, shall be initiated when detector receives optical energy of the required repetition rate from an emitter.

- Detector shall transform the optical energy signals into electrical signals and transmit the electrical signal to the phase selector for processing.

- Phase selector shall cause the local or master controller to show a selected display identical to one of the color interval displays normally available in the controller which will assist the emergency vehicles through the intersection without conflict.

- Phase selector shall allow the controller to release from hold and resume normal operation after optical energy signals are lost provided the desired green display has already been obtained. The controller shall not allow service following released to normal operation to any phase where an active call from a waiting vehicle or pedestrian does not exist.

Detector cable for optical preemption equipment shall meet specifications of the system manufacturer.

The Contractor shall arrange for a trained representative of the manufacturer of the optical energy preemption equipment to perform the following field supervision and turn-on services:

The representative shall select the proper quantity and place and method of installing all components on each controller, to comply with the operational requirements shown in the preemption schedule included in these special provisions.

- The representative shall instruct the Contractor and City of Quincy personnel in the procedures of installation and operations.

- The representative shall be available to assist, supervise and check all wiring to insure proper operation.

- The representative shall perform a final checkout to include initial adjustment of range and timing to acceptable standards within the capabilities of the intersection.

- The representative shall initiate documentation for as-built drawings.

- The representative shall demonstrate the system and instruct the drivers of fire fighting vehicles in the operation of the system.

- Any operation problems occurring within the next 30 days shall be corrected by the Field Service representative. This requirement is not intended to modify the Contractor's six-month guarantee obligation, as set further in an earlier portion of these Special Provisions.

The cost of these field supervision and turn-on services shall be included in the Lump Sum Bid Price for traffic signal control and no additional payment shall be made therefore.

2. Installation

The preemption equipment manufacturer shall be responsible for preemption system design and documentation.

Preemption System Design and documentation shall include the following:

- Provide the installing agency with locations for detector installation. Suggested detector locations are shown on the plans and may be changed to improve the operation. Notice shall be given to the Engineer prior to any change.

- Provide the controller manufacturer, Engineer and owner with electrical diagrams. The installer shall install the equipment consistent with the preemption equipment manufacturer's recommended installation procedures and electrical diagrams in a neat and workmanlike manner. The preemption equipment manufacturer shall be responsible for operational checkout of the specified preemption functions prior to final acceptance and approval by MassDOT.

Operating checkout includes the following:

- Verifying that the preemption system is properly installed as per the preemption manufacturer's recommendations and the electrical diagrams as provided by the preemption equipment manufacturer.

- Verifying that the priority system timing and range are properly set. Preemption equipment warranties are put into effect.

- Instructing the vehicle drivers or their representative(s) in the operation of the preemption system.

3. Warranty

All components of the preemption system specified herein shall be warranted by the manufacturer to be free of defects in materials and workmanship for a period of two years from the date of delivery or one year from the date of installation, whichever occurs first.

The Contractor shall repair or replace, free of charge to the City of Quincy, any part that fails in any manner during the warranty period, and six months after final acceptance of the project by the Owner.

Confirmation Strobe Light

A confirmation strobe light shall be provided and mounted as shown on the plans. It shall be located in a position where it may be visible from all preemption approaches to the intersection and shall be wired to the controller cabinet terminals by way of a separate three (3) conductor No. 14 AWG cable meeting the requirements of IMSA specification 19-1 or 20-1. Spare traffic signal conductors shall not be used for wiring the confirmation strobe light to the controller cabinet.

The strobe light shall be weather tight and consist of a double flash clear (white) strobe which shall be illuminated whenever the controller is in the emergency preemption phase. The strobe light shall meet ITE, NEMA, IMSA and MassDOT standards. The strobe light shall have a minimum diameter of five and a half (5 ½") inches and height of six and a half (6 ½") inches. It shall be capable of flashing at a rate of 65 to 75 flashes per minute. Candela intensity shall be a minimum of 1,000 for clear lenses.

As-Built Signal Layout Plans

It shall be the responsibility of the Contractor to provide the Design Engineer with as-built traffic signal layout plans indicating all changes made during the construction. The plans shall indicate the location of all traffic signal equipment installed including detectors, signal posts, mast arms, vehicular signal heads, controller cabinets, conduit, pull boxes, service connections and preemption equipment. The plans shall also indicate the final as-built timing and sequencing, major items list, power-pole number and meter number. Upon receipt of the above as-built information from the Contractor, the Design Engineer shall field verify the as-built information and plans. Following field verification, the Design Engineer will prepare the as-built Traffic Signal Layouts and/or Permits for submission to the Municipality prior to the final acceptance of the project.

Removing and Stacking Existing Traffic Signal Equipment

Existing traffic signal equipment to be removed and stacked shall include, but not be limited to, traffic signal heads, pedestrian push buttons, traffic signal posts and bases, traffic signal controllers, controller cabinets, loop detector amplifiers, hangers or brackets and any other materials not designated for reuse or necessary for the signal operation.

Prior to removal of any existing traffic signal equipment, the Contractor shall contact Mr. Robert Dechristifano of the City of Quincy Department of Traffic & Parking, at (617) 438-7299 to determine if any or all of the existing traffic signal equipment is to be salvaged.

All traffic signal equipment to be removed, stacked and deemed salvageable by the Municipality shall be stacked at the City Maintenance Facility at 55 Sea Street. The Contractor shall contact Mr. Robert Dechristifano in advance to arrange for an appropriate day and time for the delivery of the stacked and salvaged materials.

Miscellaneous Requirements

Because this is often overlooked, the Contractors' attention is drawn to the requirements of Section 813.60C Splicing, relative to four optional methods of splicing in signal bases, Section 813.40C Ground Electrodes relative to requirement 1 - connection to water piping system and Section 813.61 Equipment Grounding.

All anchor bolts and bolts for holding hand hole and access covers shall be greased at the time of installation.

The Contractor shall make all necessary arrangements with the electric company for the service connections or for any main power cut off when necessary, and bear all charges incurred thereby.

Payment for work under **Item 816.01: Traffic Control Signal Reconstruction** shall be at the contract unit price, per Lump Sum, which price shall be full compensation for all labor, materials and equipment necessary or incidental to the installation of complete intersection traffic control signal system functioning as specified and as shown, including excavation and backfill, soil borings, auguring, dewatering, pull boxes, mast arm foundations, preemption equipment, removing and stacking existing equipment, service connections and all charges therefore.

The lump sum fee set forth in the Bid Form will be divided 96% for work accepted under Phase 1 and 4% for work accepted under Phase II.

The measurement and payment provisions listed under Division 1, Section 01025, shall supplement the above payment provisions, as applicable.

Payment for **Item 748: Mobilization/Demobilization** shall be on a lump sum basis with the item amount as set forth in the Bid Form to be divided equally for mobilization (50%) and demobilization (50%). These payments shall be full compensation for all preparation work and operations, movement of men, equipment, supplies and incidentals to the project site for the establishment of full office and facilities necessary for work on this project and all other work and operations which must be performed from the time prior to the start of the work to the final

acceptance of the work by the City.

The amount allocated to demobilization activities shall not be paid until the job, including restoration work, is completed, accepted and the project area is cleaned to the satisfaction of the Engineer.

FLASHING WARNING BEACON - REMOVED AND STACKED

The work to be performed under this item shall conform to the relevant provisions of Section 800 of the Standard Specifications and the following:

Existing equipment to be removed and stacked shall include, but not be limited to, traffic signal heads, flasher controllers, controller cabinets, hangers or brackets and any other materials not designated for reuse by the Municipality.

Prior to removal of any existing flashing warning beacon equipment, the Contractor shall contact Mr. Robert Dechristifano of the City of Quincy Department of Traffic & Parking, at (617) 438-7299 to determine if any or all of the existing equipment is to be salvaged.

All flashing warning beacon equipment to be removed, stacked and deemed salvageable by the Municipality shall be stacked at the City Maintenance Facility at 55 Sea Street. The Contractor shall contact Mr. Robert Dechristifano in advance to arrange for an appropriate day and time for the delivery of the stacked and salvaged materials.

Removal and disposal of the existing service disconnect, weather head and ridge metal service pole riser shall be included under this item.

The Contractor shall make all necessary arrangements with the electric company for discontinuance of the service connection or for any main power cut off when necessary, and bear all charges incurred thereby.

Payment for work under **Item 816.80: Flashing Warning Beacon - Removed and Stacked** shall be at the contract unit price per Lump Sum, which shall be full compensation for all labor, materials, tools and equipment necessary to complete the work to the satisfaction of the Engineer.

The measurement and payment provisions listed under Division 1, Section 01025, shall supplement the above payment provisions, as applicable.

*** END OF SECTION ***

WARNING - REGULATORY AND ROUTE MARKER - ALUMINUM PANEL (TYPE A)

The work under this item shall conform to the relevant provisions of Section 828 of the Standard Specifications and the following:

All aluminum panels shall be attached to posts with standard bolts as specified on the plans or as directed by the Engineer.

Payment for work under **Item 832.1: Warning - Regulatory & Route Marker - Aluminum (Type A**) shall be at the contract unit price per Square Foot, which price shall be full compensation for all labor, materials, tools and equipment, including aluminum panels, reflective sheeting, attachments and all other incidentals thereto and necessary to complete the work to the satisfaction of the Engineer.

The measurement and payment provisions listed under Division 1, Section 01025, shall supplement the above payment provisions, as applicable.

*** END OF SECTION ***

SIGN SUPPORT (NOT GUIDE) AND ROUTE MARKER WITH 1 BREAKAWAY POST ASSEMBLY – STEEL

The work under this item shall conform to the relevant provisions of Section 840 of the Standard Specifications and the following:

All posts shall be powder coated with a gloss black finish in accordance with the requirements listed under Item 816.01.

All posts shall be installed in such a manner to provide sidewalk to sign bottom clearance in accordance with Section 2A-23 of the Manual on Uniform Traffic Control Devices (MUTCD).

Payment for work under these Items shall be at the contract unit price, per Each, for **Item 847.1: Sign Support (Not Guide) & Route Marker - Steel**, which price shall be full compensation for furnishing, installing the posts, excavation, gravel, backfill, compaction, concrete base where required, restoration of disturbed surfaces, all labor, equipment, tools, and other incidentals necessary to complete the work.

The measurement and payment provisions listed under Division 1, Section 01025, shall supplement the above payment provisions, as applicable

*** END OF SECTION ***

SAFETY CONTROLS FOR CONSTRUCTION OPERATIONS
SAFETY SIGNING FOR CONSTRUCTION OPERATIONS
PORTABLE BREAKAWAY BARRICADE TYPE III
REFLECTORIZED DRUM
REFLECTORIZED DRUM WITH FLASHER (TYPE A)

The work to be performed under these items shall conform to the relevant provisions of Section 850 of the Standard Specifications and the following:

Subsection 850.42 (reprinted from the Supplemental Specifications, dated June 6, 2006):

> Materials shall conform to Sections 828 and 840 except the plywood material shall conform to the following: Plywood sign panels and independent route markers shall be fabricated from 5 ply, 5/8" thick medium density overlaid (MDO) Exterior Type, A-B both sides surface in natural color and the whole conforming with the requirements and test for the above as set forth in US Product Standard PS1-74 for Construction and Industrial Plywood. All plywood shall bear the grade trade mark of an approved testing agency. The entire sign face shall be reflectorized with reflective sheeting conforming to M9.30.0, Type III, or Type IV, and shall be orange in color.
>
> Background sheeting for the first set of signs on each approach to the work zone shall be of a fluorescent orange color. The maximum spectral radiance factor, in accordance with Section 5.1 of ASTM E991, for the fluorescence shall be as follows:

New	110%, min.
Weathered	60%, min.

Reflectorized drums with flashers may be required to be repositioned on a daily basis, on weekends or even removed for long holiday weekends as directed by the Engineer. Only plastic drums will be used on this project.

Closed areas will be delineated with drums and suitable barricades only. Upon completion of each work day, barrels and barricades shall be placed so that they are sufficiently back from the edge of the lanes used for travel so as not to interfere with or encroach upon through traffic.

The Contractor will be required to submit sign placement and sign size sketches showing the proposed sign setups he intends to use to provide the necessary traffic control and protection during the progress of the work. Traffic Management Plans showing appropriate signing, suggested construction staging and pertinent traffic controls are included in the Contract documents. The Contractor may, however, submit an alternate traffic management plan for approval by the Engineer.

Payment for work under **Item 851: Safety Controls for Construction Operations** shall be at the contract unit price per Unit Day, which shall be full compensation for all labor, materials, tools and equipment, including furnishing, positioning, repositioning, maintaining and removing, as needed and/or as directed: traffic cones, warning devices, special apparel, etc. and all else incidental thereto and necessary to complete the work to the satisfaction of the Engineer.

Payment for work under **Item 852: Safety Signing for Construction Operations** shall be at the contract unit price per Square Foot, which shall be full compensation for all labor, materials, tools and equipment, including panels, reflective sheeting, attachments and all else incidental thereto and necessary to complete the work to the satisfaction of the Engineer.

Payment for work under **Item 853.1: Portable Breakaway Barricade Type III** shall be at the contract unit price per Each, which shall be full compensation for all labor, materials, tools and equipment necessary to complete the work to the satisfaction of the Engineer.

Payment for work under **Item 859: Reflectorized Drum; and Item 859.1 Reflectorized Drum with Flasher** shall be at the contract unit price per Drum Day, which shall be full compensation for all labor, including repositioning or removing as directed during normal work hours, materials, tools and equipment necessary to complete the work to the satisfaction of the Engineer.

The measurement and payment provisions listed under Division 1, Section 01025, shall supplement the above payment provisions, as applicable.

TEMPORARY PAVEMENT MARKINGS – 4 INCH (PAINTED)
TEMPORARY PAVEMENT MARKINGS – 12 INCH (PAINTED)
TEMPORARY PAVEMENT MARKINGS – 4 INCH (REMOVABLE TAPE)

The work under these items shall conform to the relevant provisions of Section 850 of the Standard Specifications, the 1990 Standard Drawings for Signs and Supports and the following:

Payment for work under **Item 854.014: Temporary Pavement Markings – 4 Inch (Painted); Item 854.017: Temporary Pavement Markings – 12 Inch (Painted); and Item 854.034: Temporary Pavement Markings – 4 Inch (Removable Tape)** shall be at the contract unit price, per Linear Foot of pavement markings in place on the ground, which price shall be full compensation for labor, equipment, and materials and all else incidental thereto and necessary for the satisfactory completion of the Work.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions as applicable.

PAVEMENT MARKING REMOVAL

The work under this Item shall conform to the relevant provisions of Section 850 of the Standard Specifications and the following:

Pavement Marking Removal consists of obliterating existing four (4”) to twelve (12”) inch wide pavement markings as shown on the plans or as directed by the Engineer.

Payment for work under **Item 854.1: Pavement Marking Removal** shall be at the contract unit price, per Linear Foot of pavement marking actually removed, which price shall be full compensation for all labor, equipment and materials necessary to complete the work to the satisfaction of the Engineer.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions as applicable.

*** END OF SECTION ***

4 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)
12 INCH REFLECTORIZED WHITE LINE (THERMOPLASTIC)
4 INCH REFLECTORIZED YELLOW LINE (THERMOPLASTIC)

The work under these items shall conform to the relevant provisions of Section 860 of the Standard Specifications, the 1990 Standard Drawings for Signs and Supports and the following:

Pavement markings shall be of thermoplastic reflectorized type conforming to M7.01.03 (White) and M7.01.04 (Yellow).

The design, application and installation of pavement markings shall conform to the Manual on Uniform Traffic Control Devices (MUTCD), and/or as directed by the Engineer.

Pavement markings shall be measured as the actual lengths (Linear Feet) of lines installed under the various items of the contract, measured and accepted by the Engineer.

Payment for work under **Item 866.04: 4 Inch Reflectorized White Line (Thermoplastic); Item 866.12: 12 Inch Reflectorized White Line (Thermoplastic); and Item 867.04: 4 Inch Reflectorized Yellow Line (Thermoplastic)** shall be at the contract unit prices per Linear Foot, which price shall be full compensation for all materials, tools, and equipment required and all other work incidental to the satisfactory completion of the work.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions as applicable.

*** END OF SECTION ***

STREET NAME SIGN

The work under these items shall conform to the relevant provisions of Section 828 of the Standard Specifications and the following:

All sign panels shall be attached to posts with standard bolts as specified on the plans or as directed by the Engineer.

Payment for work under **Item 874: Street Name Sign** shall be at the contract unit price, per Each, which price shall be full compensation for all labor, materials, tools and equipment, including aluminum panels, reflective sheeting, attachments and all other incidentals thereto and necessary to complete the work to the satisfaction of the Engineer.

The measurement and payment provisions listed under Division 1, Section 01025, shall supplement the above payment provisions, as applicable.

KING SQUARE MONUMENT SIGN - REMOVED AND RESET
DALEY SQUARE MONUMENT SIGN - REMOVED AND RESET
DAVIS SQUARE MONUMENT SIGN - REMOVED AND RESET

The work to be performed under this item shall conform to the relevant provisions of the Standard Specifications and the following:

The work to be performed under this item shall include the dismantling, removal, storage and reinstallation of the existing monument signs and posts at King Square, Daley Square and Davis Square as directed by the Engineer.

The Contractor shall exercise extreme care to avoid damaging the signs and posts when removing it from their existing locations. The Contractor shall ensure that the signs and posts, once removed, are stored is a secure, locked and safe location until such time that the signs and posts are ready to be reset in their new locations. The Contractor shall be held directly responsible for loss or any damage to the signs from the date the Contractor enters into a Contract with the Municipality until final acceptance of the project. If a sign or post is lost or damaged it shall be replaced or repaired, respectively at the Contactor's own expense.

The signs shall be reset in the locations as shown on the Plans and approved by the Engineer. The signs shall be relocated and reset on the existing post they are mounted to. In the event that an existing post cannot be salvaged and thus cannot be reset, the Contractor shall furnish a new post similar in construction, material, diameter, height and color as the existing post. New sign posts shall be subject to approval by the Municipality and the Engineer.

New sign post foundations shall be provided for all monument signs removed and reset. The Contractor shall determine the size and type of material for the existing sign post foundations. Sign post foundations shall be identical in type and size to the existing foundations unless directed otherwise by the Engineer.

Payment for new posts for monument signs shall be made under **Item 847.1: Sign Support (Not Guide) & Route Marker - Steel**, regardless of construction, material, diameter, height or color. Sign post for monument signs shall be paid at the contract unit price, per Each, which price shall be full compensation for furnishing, installing the posts, excavation, gravel, backfill, compaction, concrete foundations, restoration of disturbed surfaces, all labor, equipment, tools, and other incidentals necessary to complete the work.

Payment for work under **Item 874.211: King Square Monument Sign - Removed and Reset; Item 874.212: Daley Square Monument Sign - Removed and Reset; and Item 874.213: Davis Square Monument Sign - Removed and Reset;** shall be at the contract unit price, per Each, which shall be full compensation excavation, backfilling, compaction, placement of gravel, concrete foundations and pavement materials, removing, transporting, and storing signs and supports as required to the satisfaction of the Engineer.

The measurement and payment provisions listed under Division 1, Section 01025, shall supplement the above payment provisions, as applicable.

MISCELLANEOUS SIGNS REMOVED AND RESET

The work under this item shall conform to the relevant provisions of Section 840 of the Standard Specifications, the 1990 Standard Drawings for Signs and Supports, and the following:

The work to be performed under this item shall include the dismantling, removal, transporting, and resetting of the existing signs, including concrete foundations where required, at locations as shown on the plans. The work also includes the removal and disposal of the existing sign supports and foundations determined by the Engineer to be unusable.

The Contractor shall exercise particular care in the dismantling, removal, transporting, and resetting of the existing signs designated to be reused. Any sign panel damaged through carelessness or lack of protection by the Contractor shall be replaced at the Contractor's expense.

New sign supports shall be provided for all traffic signs to be removed and reset in accordance with Item 847.1.

The Contractor shall backfill with compacted gravel all holes resulting from the removal of the existing signs and their foundations and restore the area to match existing conditions of adjacent areas.

The existing signs shall not be removed and reset until the Engineer shall permit.

Payment for work under **Item 874.45: Miscellaneous Signs Removed and Reset** shall be at the contract unit price, per Each, which price shall include full compensation for dismantling, excavation and removal, loading, transporting, and resetting of the signs as designated above, the removal and disposal of their supports, gravel backfill, and concrete foundations where required.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions as applicable.

MISCELLANEOUS SIGNS REMOVED AND STACKED

The work to be performed under this item shall include the dismantling, removal, transporting and disposal of the existing roadside traffic signs and street signs as directed by the Engineer including the removal and disposal of the sign supports and their foundations.

The work shall include removing the supports, excavating the existing foundation, the disposal of the concrete and supports, the backfilling with compacted gravel of the holes resulting from the excavation and removal of the supports and the replacement, in kind, of any surface material disturbed.

The existing signs shall not be removed until the new signs and structures replacing them are ready for installation or until the Engineer orders their removal.

Signs that are salvageable, as determined by the Engineer, shall be transported and stacked at the DPW yard. The Contractor shall make arrangements with Department officials to deliver said signs to the aforementioned yard.

Signs that are not salvageable shall become the property of the Contractor and shall be disposed of offsite.

Payment for work under **Item 874.5: Miscellaneous Signs Removed and Stacked** shall be at the contract unit price, per lump sum, which price shall include full compensation for dismantling, loading, transporting, and stacking of the signs as designated above, the excavation and disposal of the existing foundation and supports of the same, and the supplying and placing of compacted gravel backfill where foundations and posts are removed and restoration of surface to the satisfaction of the Engineer.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions as applicable.

*** END OF SECTION ***

CONCRETE FOR MISCELLANEOUS USE

The work under this Item shall conform to the relevant provisions of Section 901 of the Standard Specifications and the following:

The work shall consist of furnishing and placement of structural cement concrete, and steel reinforcements, where required for use in the construction of collars, plugs, thrust blocks, concrete steps, curbs, gutters, paved areas, bridging for trenches, conduit encasement, footings, foundation pads, walls, walkways and other miscellaneous items as shown on the drawings or as directed by the Engineer.

The materials and composition of mix shall meet the requirement of 4,000 psi (28 days), 3/4-inch, 610 Cement Concrete and conforming to the relevant provisions of Section M4.02.00.

Cement concrete under this **Item 904: Concrete for Miscellaneous Uses** shall be measured in Cubic Yards, complete in place and accepted by the Engineer. This price shall be full compensation for all labor, materials, equipment, tools and all else incidental thereto. The unit price shall also include all cement concrete mix, steel reinforcements, wire, metal clips, metal chains, form work, fastenings, supporting devices, dowels, concrete curing compounds, joints, fillers and sealants where required and all else incidental thereto and necessary to complete the work in a satisfactory manner.

The measurement and payment provisions listed under Division 1, Section 01025 shall supplement the above payment provisions as applicable.

*** END OF SECTION ***

BENCH

The work to be done under this item shall conform to the relevant provisions of Section 02910 of the Standard Specifications and the following:

The Contractor shall furnish and install benches at the locations shown on the Plan or as directed by the Engineer.

Bench shall meet the following requirements;

- Length: six feet.
- Frames and Posts: 2-1/2" galvanized steel tube. Colored black.
- Seats and backrest: 6 foot long, 3"x4" nominal recycled plastic timbers. Colored Cedar.
- Seat Brackets: 3/8" thick galvanized steel. Colored black.
- Mounting: Surface mount.
- Fasteners: Hot dipped galvanized finish.
- Anchors: Stainless Steel, size per manufacturer's recommendation.

Benches shall Model PWRB3/G-8P34 as manufacture red by be Pilot Rock or approval equal. Benches and trash receptacles shall be by the same manufacturer.

Benches shall be anchored to concrete sidewalk or concrete foundation with stainless steel anchor bolts. Size, location and number of bolts shall be per manufacturer's recommendation. Contractor shall provide a concrete foundation, per the manufacturer's recommendation, in instances where the bench is to be installed in landscaped areas.

Measurement for benches shall be based on a complete unit in place and accepted by the Engineer.

Payment for the work will be made at the contract unit price per each for **Item: 910: Bench** which price shall be full compensation for furnishing and installation of the bench, including all labor, materials, equipment, anchors, foundations and incidentals to complete the work as shown on the Drawing and as directed by the Engineer.

The measurement and payment provisions listed under Division One, Section 01025 shall supplement the above payment provisions, as applicable.

TRASH RECEPTACLES

The work to be done under this item shall conform to the relevant provisions of Section 02910 of the Standard Specifications and the following:

The Contractor shall furnish and install trash receptacles at the locations shown on the Plan or as directed by the Engineer.

Trash receptacle shall meet the following requirements;

- Diameter: 28 inches.
- Height: 36 inches.
- Capacity: 36 gallons.
- Weight: 93 pounds.
- Color: Black

Trash receptacles shall Model CN/CB-M3601-FT as manufactured by Pilot Rock or approval equal. Benches and trash receptacles shall be by the same manufacturer.

Trash receptacles shall be anchored to concrete sidewalk or concrete foundation with stainless steel anchor bolts. Size, location and number of bolts shall be per manufacturer's recommendation. Contractor shall provide a concrete foundation, per the manufacturer's recommendation, in instances where the trash receptacle is to be installed in landscaped areas.

Measurement for trash receptacles shall be based on a complete unit in place and accepted by the Engineer.

Payment for the work will be made at the contract unit price per each for **Item: 911: Trash Receptacle** which price shall be full compensation for furnishing and installation of the trash receptacle, including all labor, materials, equipment, anchors, foundations and incidentals to complete the work as shown on the Drawing and as directed by the Engineer.

The measurement and payment provisions listed under Division One, Section 01025 shall supplement the above payment provisions, as applicable.

LANDSCAPED PLANTER
LANDSCAPED TREEWAY (3'X24')
LANDSCAPED TREEWAY (3'X12')

The work to be done under these Items shall conform to the relevant provisions of Sections 100, 400, 500 and 700 of the Standard Specifications and the following:

Included in the work is furnishing and installing landscaped planters, porous paved treeways, trees, and other landscaping items at the locations shown on the Plans or as directed by the engineer.

Part 1 – General

1.01 SECTION INCLUDES

A. Concrete pavers

B. Sand Bedding

C. Edge restraint

D. Mulch

E. Plantings

1.02 REFERENCES

A. American Society of Testing and Materials (ASTM)

1. C 33 Specification of Concrete Aggregates.

2. C 136 Method for Sieve Analysis for Fine and Course Aggregate.

3. C 140 Sampling and Testing Concrete Masonry Units.

4. C 144 Standard Specifications for Aggregate for Masonry Mortar.

5. C 936 Specifications for Solid Interlocking Concrete Paving Units.

6. C 979 Specifications for Pigments for Integrated Colored Concrete.

7. D 698 Test Methods for Moisture Density Relations of Soil and Soil Aggregate Mixtures Using a 5.5-lb (24.4 N) Rammer and 12 in. (305 mm) drop.

8. D1557 Test Method for Moisture Density Relations of Soil and Soil Aggregate Mixtures Using a 10- lb (44.5 N) Rammer and 18 in. (457 mm) drop.

9. D 2940 Graded Aggregate Material for Bases or Subbases for Highway or Airports.

10. C 29 Bulk Density and Voids in Aggregate Materials.

B. The American Standard Nursery Stock (ANSI Z60.1-1986).

1.03 QUALITY ASSURANCE

A. Installation shall be by a contractor and crew with at least one year of experience in placing interlocking concrete pavers on projects of similar nature.

B. The Contractor shall be in compliance with all local, state and federal licensing and bonding requirements.

1.04 SUBMITTALS

A. Shop or product drawings and product data shall be submitted.

B. Full size samples of the Permeable concrete paving units shall be available to indicate color and product shape. Color will be selected from those available through the manufacturer.

C. Sieve analysis for sand bedding shall be submitted.

D. Testing from an independent testing laboratory for compliance of paving unit requirements to ASTM C 936 or other applicable requirements shall be made available.

1.05 MOCK-UPS

A. A 4 ft. x 4 ft. paver area shall be installed.

B. This area will be used to determine joint sizes, lines, laying pattern(s), color(s), and texture of the project.

C. This area shall be the standard from which all work will be judged.

1.06 DELIVERY, STORAGE AND HANDLING

A. Concrete pavers shall be delivered to the site in steel banded, plastic banded, or plastic wrapped cubes capable of transfer by fork lift or clamp lift. The pavers shall be unloaded in such a manner that no damage occurs to the product.

B. Delivery and paving schedules shall be coordinated in order to minimize interference with normal use of buildings adjacent to paving.

1.07 ENVIRONMENTAL CONDITIONS

A. Do not install bedding aggregates or pavers during heavy rain or snowfall.

B. Do not install bedding aggregates or pavers over frozen base materials.

C. Do not install frozen bedding aggregates.

Part 2 – Materials

2.01 CONCRETE PAVERS (Permeable)

A. Supplied by:

1) 4” x 9” permeable pavers by Hanover.

2) 4” x 8” Eco-Priora by Uni-Group U.S.A.

3) Eco Dublin by Belgard

B. Color: Dark Grey

C. Paving stone units shall meet the minimum material and physical properties set forth in ASTM C 936, Standard Specification for Interlocking Concrete Paving Units.

D. Factory sealed.

E. Permeable concrete paving stones shall be manufactured with spacer bars on each unit. These spacer bars insure a proper and precise joint spacing between all paving stones units.

1) Average compressive strength 5000 psi with no individual unit under 4,500 psi.

2) Average absorption of 5% with no unit greater than 7% when tested according to ASTM C 140.

3) Resistance to 50 freeze-thaw cycles when tested according to ASTM C 67.

F. Pigment in concrete pavers shall conform to ASTM C979.

2.02 Sand Bedding

Sand bedding shall conform M4.02.02A of the Standard Specifications.

2.03 Mulch

Aged Pine Bark Mulch per M6.04.5 of the Standard Specifications.

2.04 Geotextile Fabric shall be synthetic and waterproof.

A. AEF 480 HS as manufactured by American Engineering Fabric, Inc.

B. 140 NL as manufactured by Mirafi

C. FX40 HS as manufactured by Carthage Mills

D. Or approved equal.

2.05 Edge Restraints

Provide steel edge restraints.

2.06 Trees.

A. Trees shall be 3-1/2 to 4 inch caliper deciduous shade tree.

B. Species to be selected by the Owner.

C. Shall meet the requirements of M6.06.1 of the Standard Specifications.

Part 3 – Execution

3.01 Examination

A. Verify that subgrade preparation, compacted density and elevations conform to the specifications.

B. The Architect/Engineer shall inspect subgrade preparation and elevations.

C. Verify that geotextiles, if applicable, have been placed according to specifications and drawings.

D. Verify that aggregate base materials, thickness, compaction, surface tolerances and elevations conform to the specifications.

3.02 Site Preparation

A. The site must be stripped of all topsoil and other objectionable materials to the grades specified.

B. After trimming to the grades specified, the subgrade is to be proof rolled to 95% of Modified Proctor Maximum Dry Density with soft spots or localized pockets of objectionable material excavated and properly replaced with approved granular material.

C. The subgrade shall be trimmed to within 0 to 1/2 in. of the specified grades. The surface of the prepared subgrade shall not deviate by more than 1/2 in. from the bottom edge 10 ft. straight edge laid in any direction.

D. The Contractor shall insure that the prepared subgrade is protected from damage from intrusion of surface water. No traffic shall be allowed to cross the prepared subgrade. Repair of any damage resulting shall be the responsibility of the Contractor and shall be repaired.

E. Under no circumstances shall further pavement construction proceed until the subgrade has been inspected by the Owner, Agent or the Consultant.

3.03 Planting shall be in accordance with Section 711 of the Standard Specifications.

3.04 Sand Bedding Installation

A. After proper construction of the edge restraints for the interlocking pavement as per Section 3.05, and upon approval by the Owner, Agent or Consultant, sand bedding shall be placed in uniform lifts not exceeding 3 in loose thickness and roller compacted according to the Standard Specifications for installing open graded aggregates.

B. Sand Bedding thickness shall be three inches.

C. The surface of the prepared base shall not deviate more than 1/8 in. from the bottom edge of a 10 ft. straight edge laid in any direction.

D. Before commencing the placing of bedding and the placement of the permeable concrete pavers, the base shall be inspected by the Owner, Agent or the Consultant.

3.05 Edge Restraints

A. Adequate edge restraint shall be provided along the perimeter of all paving as specified. The leading edge of the restraint, where it contacts the paving stone shall be fit parallel along the edge of the paving units.

B. All edge restraints shall be constructed to dimensions and profiles specified and shall be supported by a compacted subbase of not less than 6 in. thickness.

3.06 PAVER INSTALLATION

A. Spread the bedding aggregate evenly over the base course and screed to a nominal 1 ½ in. to 2 in. thickness. Use tracked equipment only and insure that the bedding aggregate are not to be disturbed. Place sufficient bedding aggregate to stay ahead of the laid pavers. Do not use the bedding aggregate to fill depressions in the base surface.

B. Pavers shall be free of foreign material before installation.

C. Pavers shall be inspected for color distribution and all chipped, damaged or discolored pavers shall be replaced.

D. The pavers shall be laid in pattern(s) as shown on the drawings.

E. Joints between the pavers shall be maintained according to the spacer bars.

F. Gaps at the edges of the paved area shall be filled with cut pavers.

F. Units cut no smaller than one-third of a whole paver are recommended along edges.

G. Pavers to be placed along the edge shall be cut with a double blade paver splitter of masonry saw.

H. The paver surface shall be swept clean of all debris before compacting, in order to avoid damage from point loads.

I. A low amplitude, high frequency plate compactor shall be used to compact the pavers into the bedding course.

J. The pavers shall be compacted and joint aggregate swept into the joints until the joints are full. This will require a least two or three passes with the compactor. Do not compact within 3 ft. of any unrestrained edges of the laid paving units.

K. All work to within 3 ft. of the laying face must be fully compacted and filled with joint aggregate at the completion of each day.

L. Excess joint aggregates shall be swept off when the job is complete.

M. The final surface elevations shall not deviate more than 1/8 in. under a 10 ft straight edge.

The surface elevation of pavers shall be even with adjacent surfaces.

3.07 FIELD QUALITY CONTROL

A. Final elevations shall be checked for conformance to the drawings after removal of excess joint aggregate.

Measurement for landscaped planters and landscaped treeways shall be based on a complete system and accepted by the Engineer.

Payment for the work under **Item: 913: Landscaped Planter; Item 913.1: Landscaped Treeway (3'x24'); Item 913.2: Landscaped Treeway (3'x12')** will be made at the contract unit price per each, respectively which price shall be full compensation for excavation, backfill, compaction, trees, porous pavers, sand bedding, geotextile

fabric, edging, watering, and mulch including all labor, materials, equipment and incidentals to complete the work as shown on the Drawings and as directed by the Engineer.

Payment for Structure Soil Mix will be paid for separately under Item 755.

The measurement and payment provisions listed under Division One, Section 01025 shall supplement the above payment provisions, as applicable.

*** END OF SECTION ***

TRAFFIC POLICE DETAILS

The work to be done under this section shall conform to the relevant provisions of section 7.00 of the Standard Specifications and supplemented by the following:

All uniformed traffic police personnel required for public safety and traffic control for construction projects located within the City shall be authorized by the Department of Public Work's Safety Officer and/or the Project Resident Engineer.

No payment will be made for personnel other than uniformed traffic police, nor will payment be made for uniformed traffic police not approved by the Engineer.

The project construction contractor shall submit a forecast weekly traffic police detail schedule, at least 72 hours days prior to the start of the work. The schedule shall describe the nature and location of the work, the number of police personnel and the estimated number of police hours required for each location. The Contractor must also include justification for each uniformed officer being requested. All payment to the police for work under this contract shall be in accordance with the Massachusetts General Laws, Chapter 149, Section 34B, which states that reserve police officers shall receive the same prevailing wage rate as paid to regular police officers.

While scheduling work in areas where uniformed traffic police is required, the Contractor must recognize that uniformed police are paid for a four-hour minimum. If uniformed police are arranged to work and weather or some other situation prohibits the work, the Police Department Detail Unit shall be notified at 479-1212 before **5:30 AM on the day of intended work** to cancel the work order. Unless the work order is canceled in time, the Contractor shall be charged at the rate of minimum four hours for each officer included in the detail. The Contractor shall be fully responsible for payment of all charges thus incurred.

The intent of posting police details is to insure public safety and protection of property through appropriate traffic control. Police personnel are not to be employed as watchmen to protect the Contractor's equipment and materials. Nothing contained herein shall be construed as relieving the Contractor of any of his responsibilities for protection of the public and property under the terms of the Contract.

Reimbursement to the Contractor for uniformed traffic police details shall be made from amounts allocated under **Pay Item 999.001: Traffic Police Details** in the schedule of quantities. Payment for uniformed traffic police officers will be paid for on the basis of the actual hours worked and paid for by the Contractor as verified by the Resident Engineer. The invoiced amounts paid by the Contractor may include standard administrative charges levied by the Police Department. An allowance has been used for this pay item at account for varying hourly rates.

The Contractor shall submit copies of all traffic police invoices paid (include copy of cashed check paid to police) with its regular Application for Payment. These invoices shall clearly show the following:

a.) the project name;

b.) the officer's name;

c.) location of assignment;

d.) date of assignment;

e.) hours of assignment; and

f.) number of hours being invoiced.

Failure to include this information and a proof of payment with the "application for payment" shall result in non-payment of invoiced amount.

The measurement and payment provisions listed under Division One, Section 01025 shall supplement the above payment provisions, as applicable.

*** END OF SECTION ***

APPENDIX A

EECBG Grant Agreement
Award No. DE-SC0003078

ASSISTANCE AGREEMENT

	2. Modification No.	3. Effective Date	4. CFDA No.
)3078		11/04/2009	81.128

To	6. Sponsoring Office	7. Period of Performance
CITY OF NNIS E. HARRINGTON COCK STREET DEPARTMENT A 021695119	EERE (FORS) U.S. Department of Energy Office of Energy Efficiency & Renewable Forrestal Building 1000 Independence Avenue, SW Washington DC 20585	11/04/2009 through 11/03/2012

greement	9. Authority	10. Purchase Request or Funding Document No.
ative Agreement	Energy Independence and Security Act (EISA) of 2007	10SC000606

ice Address	12. Total Amount	13. Funds Obligated
CITY OF NIS E. HARRINGTON COCK STREET DEPARTMENT 021695119	Govt. Share: $881,200.00 Cost Share : $0.00 Total : $881,200.00	This action: $881,200.00 Total : $881,200.00

Investigator	15. Program Manager	16. Administrator
Harrington 3	Martha J. Kass Phone: 865-576-0717	Oak Ridge U.S. Department of Energy P.O. Box 2001 Oak Ridge TN 37831

ayment Requests To	18. Paying Office	19. Submit Reports To
k Ridge/OSTI rtment of Energy Office Financial Service Center 5017 TN 37831		See Reporting Requirements Checklist

g and Appropriation Data

ts

Title and/or Description of Project

CITY OF QUINCY MASSACHUSETTS

For the Recipient		For the United States of America	
f Person Authorized to Sign Thomas P. Koch		25. Signature of Grants/Agreements Officer	
Title P. Koch Mayor	24. Date Signed 11/10/09	26. Name of Officer JUDITH S. WILSON	27. Date Signed 11/04/2009

EECBG Activity Worksheet

Grantee: City of Quincy Massachusetts Date: 06/15/2009

DUNS #: 79532107 Program Contact Email: dharrington@ci.quincy.ma.us

Program Contact First Name: Dennis Last Name: Harrington

Project Title: Intersection Safety and Efficiency Improvement

Activity: 12. Lighting If Other:

Sector: Transportation If Other:

Proposed Number of Jobs Created: 2.00 Proposed Number of Jobs Retained:

Proposed Energy Saved and/or Renewable Energy Generated: 78382

Proposed GHG Emissions Reduced (CO2 Equivalents): 4,404.000

Proposed Funds Leveraged:

Proposed EECBG Budget: 216,025.00

Projected Costs Within Budget: Administration: $21,720.00 Revolving Loans: Subgrants: $194,305.00

Project Contact First Name: Dennis Last Name: Harrington Email: dharrington@ci.quincy.ma.us

Metric Activity: Transportation If Other:

Project Summary: *(limit summary to space provided)*

This project will install an energy efficient traffic signal as part of a comprehensive economic development rehabilitation project in one of Quincy's most economically distressed neighborhoods. Brewer's Corner, as this area is known, and the adjacent neighborhood is a predominantly low and moderate income area according to the 2000 US Census.

Based on a recent field survey, conducted by City staff, Brewer's Corner is in serious need of infrastructure improvements including, traffic signal safety and efficiency, sidewalk and curb reconstruction, handicap accessibility, pedestrian amenities, and roadway resurfacing and repaving. Improvements to the area will enhance pedestrian and vehicular circulation and safety, improve economic viability for area businesses and employees while boosting general living conditions for residential neighbors.

This project will leverage both Community Development Block Grant funds and State (Massachusetts) Chapter 90 funding. This project accomplishes several goals of the EECBG program including energy efficiency, community and economic development and leveraging other resources to maximize energy, economic and environmental benefits.

*If you are proposing more than one activity, save this file as many times as needed with successive page numbers. For example: "OH-CITY-Columbus-Project Activity **page 1**.pdf," "OH-CITY-Columbus-Project Activity **page 2**.pdf," and continue as needed.*

DOE F 4600.2
(2/09)
All Other Editions Are Obsolete

ATTACHMENT 3

U.S. Department of Energy
FEDERAL ASSISTANCE REPORTING CHECKLIST AND INSTRUCTIONS

1. Identification Number: DE-SC0003078	2. Program/Project Title: EECBG The City of Quincy Massachusetts		
3. Recipient: The City of Quincy Massachusetts			
4. Reporting Requirements:	Frequency	No. of Copies	Addressees
A. MANAGEMENT REPORTING ☐ Progress Report ☒ Special Status Report	A	Upload only 1 copy to the address in the next column at the interval specified in the previous column.	EEgrants@oro.doe.gov Contracting Officer listed in Block 25 of Assistance Agreement
B. SCIENTIFIC/TECHNICAL REPORTING (Reports/Products must be submitted with appropriate DOE F 241. The 241 forms are available at www.osti.gov/elink) Report/Product — Form ☐ Final Scientific/Technical Report — DOE F 241.3 ☐ Conference papers/proceedings* — DOE F 241.3 ☐ Software/Manual — DOE F 241.4 ☐ Other (see Special Instructions) — DOE F 241.3 ** Scientific and technical conferences only*			
C. FINANCIAL REPORTING ☒ SF-425, Federal Financial Report	Q, F		EEgrants@oro.doe.gov Contracting Officer listed in Block 25 of Assistance Agreement
D. CLOSEOUT REPORTING ☐ Patent Certification ☒ Property Certification ☐ Other (see Special Instructions)	F		EEgrants@oro.doe.gov Contracting Officer listed in Block 25 of Assistance Agreement
E. OTHER REPORTING ☐ Annual Indirect Cost Proposal ☐ Annual Inventory Report of Federally Owned Property, if any ☒ Other – See Section 5 below:	Q, F, A		See Special Instructions Below

FREQUENCY CODES AND DUE DATES:

A - Within 5 calendar days after events or as specified.

F - Final; 90 calendar days after expiration or termination of the award.

Y - Yearly; 90 days after the end of the reporting period.

S - Semiannually; within 30 days after end of reporting period.

Q - Quarterly; within 30 days after end of the reporting period.

5. Special Instructions: Forms are available at https://www.eere-pmc.energy.gov/forms.asp.

Other Reporting is as follows:

Energy Efficiency and Conservation Strategy (if applicable)
ANNUAL REPORTS
ARRA – Performance Progress Report
Special Reports and Assurances identified on Attachment 6:" Special Requirements". Submit Quarterly.

See Federal Assistance Reporting Instructions on following pages for more details.

Please note: All quarterly reports are due no later than 30 days after the end of the reporting period. Because this award is funded under the Recovery Act, the ARRA Performance Progress Report is due no later than 10 days after the end of the reporting period.

Federal Assistance Reporting Instructions

Reporting requirements under the EECBG Program consist of the following types of reports:

SPECIAL STATUS REPORT

The recipient must report the following events by e-mail as soon as possible after they occur:

1. Developments that have a significant favorable impact on the project.

2. Problems, delays, or adverse conditions which materially impair the recipient's ability to meet the objectives of the award or which may require DOE to respond to questions relating to such events from the public. For example, the recipient must report any of the following incidents and include the anticipated impact and remedial action to be taken to correct or resolve the problem/condition:

   a. Any single fatality or injuries requiring hospitalization of five or more individuals.

   b. Any significant environmental permit violation.

   c. Any verbal or written Notice of Violation of any Environmental, Safety, and Health statutes or regulations.

   d. Any incident which causes a significant process or hazard control system failure.

   e. Any event which is anticipated to cause a significant schedule slippage or cost increase.

   f. Any damage to Government-owned equipment in excess of $50,000.

   g. Any other incident that has the potential for high visibility in the media.

FINANCIAL REPORTING

- FOR ALL RECIPIENTS: Submit a Quarterly Progress Report and the SF-425 Federal Financial Report. Instructions for the Quarterly Progress Report are below. The SF-425 is available at http://www.whitehouse.gov/omb/grants/index.html.

CLOSEOUT REPORTING

Property Certification

The recipient must provide the Property Certification, including the required inventories of non-exempt property, located at http://grants.pr.doe.gov.

EECS STRATEGY (for units of local government and Indian tribes only)

- FOR UNITS OF LOCAL GOVERNMENT AND INDIAN TRIBES: units of local government and Indian tribes that do not submit an Energy Efficiency and Conservation Strategy (EECS) with their application must submit one not later than one-hundred twenty (120) days after the effective date of the award. The EECS shall be a comprehensive strategy that covers, at a minimum, all items details in Attachment D as well as the following:

  - Jurisdictional area covered by plan and governing body and/or office with direct authority over plan
  - Plan implementation partners and any leverages funds from private or other public sources
  - Baseline energy use and GHG emissions inventory and forecast
  - Goals/objectives for total energy use and emissions reductions, and energy efficiency increase (including deployment of renewable technologies)
    - Goals can be qualitative

- Actions/plans/strategies and implementation schedule to meet goals
  - Actions and strategies included in the plan can be eligible activities for use of funds under EECBG as well as activities that are ineligible; comprehensive planning is encouraged. The eligible activities should be marked as such.
  - Applicants are encouraged, in particular, to include the potential impact of anticipated leveraged funds from private as well as other public sources.
- Expected outcomes and benefits of plan:
  - Jobs created and/or retained
  - Energy saved
  - Renewable energy capacity
  - GHG emissions reduced
  - Funds leveraged
- Obstacles to reaching goals and strategies to remove obstacles
- Policies and/or administrative actions adopted or needed to support actions/plans/strategies/targets/schedule
- Evaluation, monitoring and verification plan
- Plan for how activities will be sustained beyond grant period
- Plans for the use of funds by adjacent eligible units of local governments that receive grants under the program; and plans to coordinate and share information with the state in which the eligible unit of local government is located regarding activities carried out using the grant to maximize the energy efficiency and conservation benefits under this part.
- Plans for how these funds will be coordinated with leverages funds, including other Recovery Act funds, to maximize benefits for local and regional communities.

ANNUAL REPORTS

- FOR UNITS OF LOCAL GOVERNMENT AND INDIAN TRIBES: Submit annual reports not later than two (2) years after the effective date of this award and annually thereafter. The annual report shall describe the status of development and implementation of the energy efficiency and conservation strategy and an assessment of energy efficiency gains within the jurisdiction of the eligible unit of local government or Indian Tribe. The annual report shall also address the metrics listed below.

- FOR STATES: Submit annual reports not later than one (1) year after the effective date of this award and annually thereafter. The annual report will include the metrics listed below as well as:
  - The status of development and implementation of the energy efficiency and conservation strategy of the state during the preceding calendar year;
  - The status of the subgrant program of the state;
  - Specific energy efficiency and conservation goals of the state for subsequent calendar years; and
  - Activities (list all programs created or supported by program funds and amount of program funds spent on each activity, indicate which programs are new and which are existing, indicate which programs are supported solely by program funds, and which have other funding sources.

ARRA PERFORMANCE PROGRESS REPORT

Failure to comply with this reporting requirement may result in termination of that part of the award funding by Recovery Act.

Not later than 10 days after the end of each calendar quarter, each recipient shall submit a report to the grantor agency that contains:

- The total amount of American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, covered funds received from that agency;
- The amount of American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, covered funds received that were expended or obligated to project or activities;
- A detailed list of all projects or activities for which American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, covered funds were expended or obligated including:

- Name of project or activity
- Description of project or activity
- Evaluation of the completion status of project or activity
- Estimate of number of jobs created and retained by project or activity *in the manner and form prescribed by DOE*
- Infrastructure investments made by State and local governments, purpose, total cost, rationale or agency for funding infrastructure investment, name of agency contact.
- Information on subcontracts or subgrants awarded by recipient to include data elements required to comply with the Federal Accountability and Transparency Act of 2006 (Pub. L. 109-282).

- Compliance: As a condition of receipt of funds under this Act, no later than 180 days of enactment, all recipients shall provide the information described above.

DOE intends to append the periodic ARRA – Performance Progress Report to include reporting on the following, at a minimum:

The results of the funding provided for the EECBG Program through the American Recovery and Reinvestment Act (ARRA) will be assessed according to the following performance metrics:

- Jobs created and/or retained
- Energy (kwh/therms/gallons/BTUs/etc.) saved
- Renewable energy generated
- GHG emissions reduced
- Cost savings

The metrics described below are designed to track the accomplishments of projects funded by EECBG. States must not include results reported by direct grant recipients. Grant recipients will be presented with reporting requirements at the time they receive funding and will be expected to report their achievements in terms of the specified metrics presented below.

Grant recipients will be required to report quarterly on project expenditures, and also on specific activities and achievements, such as square feet of buildings retrofitted. These items tend to be outputs (actions taken by grant recipients) but also include some short-term outcomes (results achieved relatively soon after project outputs occur that lead toward attainment of ultimate project objectives).

Expenditures: Accurate records should be kept on project expenditures for all EECBG ARRA funded efforts. The specific information to be gathered and tracked is listed below. It will be the same for all project types:

- Expenditures for project activities
- Expenditures for administration
- Expenditures for evaluation
- Leveraged funds

Metrics Activity: The key metrics to be reported will vary by project type. The minimum information to be reported, by project activity type, is reported below.

Building Codes and Standards

- Name of new code adopted
- Name of old code replaced
- Number of new and existing buildings covered by new code

Building Retrofits

- Number of buildings retrofitted, by sector
- Square footage of buildings retrofitted, by sector

Clean Energy Policy

- Number of alternative energy plans developed or improved
- Number of renewable portfolio standards established or improved
- Number of interconnection standards established or improved

- Number of energy efficiency portfolio standards established or improved
- Number of other policies developed or improved

Building Energy Audits

- Number of audits performed, by sector
- Floor space audited, by sector
- Auditor's projection of energy savings, by sector

Energy Efficiency Rating and Labeling

- Types of energy-consuming devices for which energy-efficiency rating and labeling systems were endorsed by the grantee

Government, School, Institutional Procurement

- Number of units purchased, by type (e.g., vehicles, office equipment, HVAC equipment, streetlights, exit signs)

Industrial Process Efficiency (kwh equivalents)

- Reduction in natural gas consumption (mmcf)
- Reduction in fuel oil consumption (gallons)
- Reduction in electricity consumption (MWh)

Loans and Grants

- Number and monetary value of loans given
- Number and monetary value of grants given

Renewable Energy Market Development

- Number and size of solar energy systems installed
- Number and size of wind energy systems installed
- Number and size of other renewable energy systems installed

Financial Incentives for Energy Efficiency and Other Covered Investments

- Monetary value of financial incentive provided, by sector
- Total value of investments incentivized, by sector

Technical Assistance

- Number of information transactions contacts (for example, webinar, site visit, media, fact sheet) in which energy efficiency or renewable energy measure were recommended, by sector

Transportation

- Number of alternative fuel vehicles purchased
- Number of conventional vehicles converted to alternative fuel use
- Number of new alternative refueling stations emplaced
- Number of new carpools and vanpools formed
- Number of energy-efficient traffic signals installed
- Number of street lane-miles for which synchronized traffic signals were installed

Workshops, Training, and Education

- Number of workshops, training, and education sessions held, by sector
- Number of people attending workshops, training, and education sessions, by sector

Other Activities Not Previously Defined

- Pertinent metric information for any activity not defined above should be captured and included as needed

Short-term Outcomes (DOE will provide supplemental guidance on how to calculate these outcomes to ensure consistent approaches that results can be aggregated at a regional, State and national level):

Energy Savings (kwh equivalents)

- Annual reduction in natural gas consumption (mmcf) by sector and end-use category
- Annual reduction in electricity consumption (MWh) by sector and end-use category
- Annual reduction in electricity demand (MW) by sector and end-use category
- Annual reduction in fuel oil consumption (gallons) by sector and end-use category
- Annual reduction in propane consumption (gallons) by sector and end-use category
- Annual reduction in gasoline and diesel fuel consumption (gallons) by sector and end-use category

Job Creation/Retention

- Number
- Type
- Duration

Renewable Energy Capacity and Generation

- Amount of wind-powered electric generating capacity installed (MW)
- Amount of electricity generated from wind systems (MWh)
- Amount of photovoltaic generating capacity installed (MW)
- Amount of electricity generated from photovoltaic systems (MWh)
- Amount of electric generating capacity from other renewable sources installed (MW)
- Amount of electricity generated from other renewable sources (MWh)

Emissions Reductions (tons) (CO_2 equivalents)

- Methane
- Carbon
- Sulfur dioxide
- Nitrogen oxide
- Carbon monoxide

Protected Personally Identifiable Information (PII)

Reports must not contain any *Protected* PII. PII is any information about an individual which can be used to distinguish or trace an individual's identity. Some information that is considered to be PII is available in public sources such as telephone books, public websites, university listings, etc. This type of information is considered to be Public PII and includes, for example, first and last name, address, work telephone number, e-mail address, home telephone number, and general educational credentials. In contrast, *Protected* PII is defined as an individual's first name or first initial and last name in combination with any one or more of types of information, including, but not limited to, social security number, passport number, credit card numbers, clearances, bank numbers, biometrics, date and place of birth, mother's maiden name, criminal, medical and financial records, educational transcripts, etc.

ATTACHMENT 4 – BUDGET PAGES

(.xls sht 1)Applicant Name: City of Quincy, Massachusetts

Award Number:

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. EECBG	81.128			$881,200		$881,200
2.	81.128					$0
3.	81.128					$0
4.	81.128					$0
5. Totals		$0	$0	$881,200	$0	$881,200

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity				Total (5)
	(1) Activity #1 EECBG Strategy	(2) Activity #5 Energy Efficiency Retrofits	(3) Activity #6A Buildings & Facilities	(4) Activity #6B Building & Facilities	
a. Personnel			$168,000		$168,000
b. Fringe Benefits			$57,000		$57,000
c. Travel					$0
d. Equipment					$0
e. Supplies					$0
f. Contractual	$43,775	$100,000		$70,000	$213,775
g. Construction					$0
h. Other (Administrative)	$5,000	$11,000	$25,000	$7,800	$48,800
i. Total Direct Charges (sum of 6a-6h)	$48,775	$111,000	$250,000	$77,800	$487,575
j. Indirect Charges	$0	$0	$0	$0	$0
k. Totals (sum of 6i-6j)	$48,775	$111,000	$250,000	$77,800	$487,575
7. Program Income					$0

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SF-424A (Rev. 4-92)
Prescribed by OMB Circular A-102

(.xls sht 2)Applicant Name: City of Quincy, Massachusetts

Award Number:

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. EECBG	81.128					$881,200
2.						$0
3.						$0
4.						$0
5. Totals		$0	$0	$0	$0	$881,200

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity				Total (5)
	(1) Activity #7 Transportation	(2) Activity #8A Building Codes & Inspections	(3) Activity #8B Building Codes & Inspections	(4) Activity #10 Material Conservation Programs	
a. Personnel				$15,000	$15,000
b. Fringe Benefits					$0
c. Travel					$0
d. Equipment	$55,000				$55,000
e. Supplies				$50,000	$50,000
f. Contractual		$10,000	$30,000		$40,000
g. Construction					$0
h. Other (Administrative)	$6,000	$1,600	$3,300	$6,700	$17,600
i. Total Direct Charges (sum of 6a-6h)					$0
j. Indirect Charges	$0	$0	$0	$0	$0
k. Totals (sum of 6i-6j)	$61,000	$11,600	$33,300	$71,700	$177,600
7. Program Income					$0

(.xls sht 3)Applicant Name: City of Quincy, Massachusetts

Award Number:

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. EECBG	81.128			$881,200		$881,200
2.						$0
3.						$0
4.						$0
5. Totals		$0	$0	$881,200	$0	$881,200

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity				Total (5)
	(1) Activity #12 Traffic Signals & Street Lighting				
a. Personnel					$0
b. Fringe Benefits					$0
c. Travel					$0
d. Equipment	$194,305				$194,305
e. Supplies					$0
f. Contractual					$0
g. Construction					$0
h. Other (Administrative)	$21,720				$21,720
i. Total Direct Charges (sum of 6a-6h)	$216,025				$216,025
j. Indirect Charges	$0				$0
k. Totals (sum of 6i-6j)	$216,025				$216,025
7. Program Income					$0

(.xls sht 4)Applicant Name: City of Quincy, Massachusetts

Award Number:

Budget Information - Non Construction Programs

OMB Approval No. 0348-0044

Section A - Budget Summary

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. EECBG						
2.						
3.						
4.						
5. Totals		$0	$0	$0	$0	$0

Section B - Budget Categories

6. Object Class Categories	Grant Program, Function or Activity				Total (5)
a. Personnel					
b. Fringe Benefits					
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual					
g. Construction					
h. Other (Administrative)					
i. Total Direct Charges (sum of 6a-6h)					
j. Indirect Charges					
k. Totals (sum of 6i-6j)					
7. Program Income					$0

SF-424A (Rev. 4-92)

Budget Detail MA-CITY-Quincy

DE-SC0003078 EECBG Award $881,200.00

Project Number	1	2	3	4	5	6	7	8	9		
EECBG Attachment	2a	2b	2c	2d	2e	2f	2g	2h	2i		
Project Description	QCAP Headstart	Adv. Traffic Control Syst	Intersection Safety & Eff. Improvement	Energy Manager	Engy Eff, Ren Engy and Recycl Education	Energy Code Professional Development	Policy Develop. For Sustainable Engy Devel.	Purchase of ReCycling Bins	EEC Strategy Implementation		
Object Class Categories	5. Energy Eff. Retrofits	7. Transportation	12. Lighting	6. EE&C for Bldgs and Fac.	6. EE&C for Bldgs and Fac.	8. Codes and Enforcement	8. Codes and Enforcement	10. Material Recycling	2. Tech Consultant Svcs	Total	Percent
EECBG Federal Funding Budget											
Personnel	$0.00	$0.00	$0.00	$168,000.00	$0.00	$0.00	$0.00	$15,000.00	$0.00	$183,000.00	100.00%
Fringe Benefits	$0.00	$0.00	$0.00	$57,000.00	$0.00	$0.00	$0.00	$0.00	$0.00	$57,000.00	
Travel	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Equipment	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Supplies	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$50,000.00	$0.00	$50,000.00	100.00%
Contractual	$100,000.00	$55,000.00	$194,305.00	$0.00	$70,000.00	$10,000.00	$30,000.00	$0.00	$43,775.00	$503,080.00	100.00%
Construction	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Other	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Total Direct Charges	$100,000.00	$55,000.00	$194,305.00	$225,000.00	$70,000.00	$10,000.00	$30,000.00	$65,000.00	$43,775.00	$793,080.00	100.00%
Indirect Charges	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Administrative Costs	$11,000.00	$6,000.00	$21,720.00	$25,000.00	$7,800.00	$1,600.00	$3,300.00	$6,700.00	$5,000.00	$88,120.00	100.00%
Totals	$111,000.00	$61,000.00	$216,025.00	$250,000.00	$77,800.00	$11,600.00	$33,300.00	$71,700.00	$48,775.00	$881,200.00	100.00%
EECBG Recipient Budget											
Personnel	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Fringe Benefits	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Travel	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Equipment	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Supplies	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Contractual	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Construction	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Other	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Total Direct Charges	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
Indirect Charges	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Administrative Costs	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Totals	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	0.00%
EECBG Total Budget											
Personnel	$0.00	$0.00	$0.00	$168,000.00	$0.00	$0.00	$0.00	$15,000.00	$0.00	$183,000.00	
Fringe Benefits	$0.00	$0.00	$0.00	$57,000.00	$0.00	$0.00	$0.00	$0.00	$0.00	$57,000.00	
Travel	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Equipment	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Supplies	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$50,000.00	$0.00	$50,000.00	
Contractual	$100,000.00	$55,000.00	$194,305.00	$0.00	$70,000.00	$10,000.00	$30,000.00	$0.00	$43,775.00	$503,080.00	
Construction	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Other	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$65,000.00	$43,775.00	$793,080.00	
Total Direct Charges	$100,000.00	$55,000.00	$194,305.00	$225,000.00	$70,000.00	$10,000.00	$30,000.00	$0.00	$0.00	$0.00	
Indirect Charges	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	
Administrative Costs	$11,000.00	$6,000.00	$21,720.00	$25,000.00	$7,800.00	$1,600.00	$3,300.00	$6,700.00	$5,000.00	$88,120.00	10.00%
Totals	$111,000.00	$61,000.00	$216,025.00	$250,000.00	$77,800.00	$11,600.00	$33,300.00	$71,700.00	$48,775.00	$881,200.00	

APPENDIX B

CDBG-R Grant Agreement
Award No. B-10-MC-25-0021

Funding Approval and HOME Investment Partnerships Agreement

Title II of the National Affordable Housing Act

U.S. Department of Housing and Urban Development
Office of Community Planning and Development

OMB Approval No. 2506-0171
(Exp. 05/31/2007)

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. This agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless that collection displays a valid OMB control number.

The HOME statute imposes a significant number of data collection and reporting requirements. This includes information on assisted properties, on the owners or tenants of the properties, and on other programmatic areas. The information will be used: 1) to assist HOME participants in managing their programs; 2) to track performance of participants in meeting fund commitment and expenditure deadlines; 3) to permit HUD to determine whether each participant meets the HOME statutory income targeting and affordability requirements; and 4) to permit HUD to determine compliance with other statutory and regulatory program requirements. This data collection is authorized under Title II of the Cranston-Gonzalez National Affordable Housing Act or related authorities. Access to Federal grant funds is contingent on the reporting of certain project-specific data elements. Records of information collected will be maintained by the recipients of the assistance. Information on activities and expenditures of grant funds is public information and is generally available for disclosure. Recipients are responsible for ensuring confidentiality when public disclosure is not required.

1. Participant Name and Address City of Quincy 1305 Hancock Street Quincy, MA 02169	2. Participant Number M-10-DC-25-0214
	3. Tax Identification Number 046001409 - DUNS: 079532107
	4. Appropriation Number 860/20205
	5. FY (yyyy) 2010

6. Previous Obligation (Enter "0" for initial FY allocation)		$
a. Formula Funds	$	
b. Community Housing Development Org. (CHDO) Competitive	$	
7. Current Transaction (+ or -)		$ 986,511.00
a. Formula Funds	$ 986,511.00	
1. CHDO (For deobligations only)	$	
2. Non- CHDO (For deobligations only)	$	
b. CHDO Competitive Reallocation or Deobligation (see #18 below)	$	
8. Revised Obligation		$
a. Formula Funds	$	
b. CHDO Competitive Reallocation	$	

9. Special Conditions (check applicable box) ☒ Not applicable ☐ Attached	10. Date of Obligation (Congressional Release Date) (mm/dd/yyyy) / /

This Agreement between the Department of Housing and Urban Development (HUD) and the Participating Jurisdiction/Entity is made pursuant to the authority of the HOME Investment Partnerships Act (42 U.S.C. 12701 et seq.). The Participating Jurisdiction's /Entity's approved Consolidated Plan submission/Application and the HUD regulations at 24 CFR Part 92 (as is now in effect and as may be amended from time to time) and this HOME Investment Partnership Agreement, form HUD-40093, including any special conditions, constitute part of this Agreement. Subject to the provisions of this Agreement, HUD will make the funds for the Fiscal Year specified, available to the Participating Jurisdiction/Entity upon execution of this Agreement by the parties. All funds for the specified Fiscal Year provided by HUD by formula reallocation are covered by this Agreement upon execution of an amendment by HUD, without the Participating Jurisdiction's execution of the amendment or other consent. HUD's payment of funds under this Agreement is subject to the Participating Jurisdiction's/Entity's compliance with HUD's electronic funds transfer and information reporting procedures issued pursuant to 24 CFR 92.502. To the extent authorized by HUD regulations at 24 CFR Part 92, HUD may, by its execution of an amendment, deobligate funds previously awarded to the Participating Jurisdiction/Entity without the Participating Jurisdiction's/Entity's execution of the amendment or other consent. The Participating Jurisdiction/Entity agrees that funds invested in affordable housing under 24 CFR Part 92 are repayable when the housing no longer qualifies as affordable housing. Repayment shall be made as specified in 24 CFR Part 92. The Participating Jurisdiction agrees to assume all of the responsibility for environmental review, decision making, and actions, as specified and required in regulation at 24 CFR 92.352 and 24 CFR Part 58.

11. For the U.S. Department of HUD (Name and Title of Authorized Official) Robert L. Paquin, Director	12. Signature	13. Date
14. For the Participating Jurisdiction/Entity (Name and Title of Authorized Official) Thomas P. Koch, Mayor of Quincy	15. Signature	16. Date 8/16/10

17. Check one:

☒ Initial Agreement ☐ Amendment # _____

18. Funding Information:

Source of Funds	Appropriation Code	PAS Code	Amount
			$
			$
			$

CHDO Competitive Reallocation

Source of Funds	Appropriation Code	PAS Code	Amount
			$
			$

Funding Approval/Agreement

Title I of the Housing and Community Development Act (Public Law 930383)

U.S. Department of Housing and Urban Development
Office of Community Planning and Development
Community Development Block Grant Program

HI-00515R of 20515R

1. Name of Grantee (as shown in item 5 of Standard Form 424) City of Quincy, MA	3. Grantee's 9-digit Tax ID Number 0460011409 DUNS: 079532107	4. Date use of funds may begin 07-01-10
2. Grantee's Complete Address (as shown in item 5 of Standard Form 424) Department of Planning & Community Development 1305 Hancock Street Quincy, MA 02169	5a. Project/Grant No. 1 B-10-MC-25-0021	6a. Amount Approved $2,238,378.00
	5b. Project/Grant No. 2	6b. Amount Approved
	5c. Project/Grant No. 3	6c. Amount Approved

Grant Agreement: This Grant Agreement between the Department of Housing and Urban Development (HUD) and the above named Grantee is made pursuant to the authority of Title I of the Housing and Community Development Act of 1974, as amended, (42 USC 5301 et seq.). The Grantee's submissions for Title I assistance, the HUD regulations at 24 CFR Part 570 (as now in effect and as may be amended from time to time), and this Funding Approval, including any special conditions, constitute part of the Agreement. Subject to the provisions of this Grant Agreement, HUD will make the funding assistance specified here available to the Grantee upon execution of the Agreement by the parties. The funding assistance specified in the Funding Approval may be used to pay costs incurred after the date specified in item 4 above provided the activities to which such costs are related are carried out in compliance with all applicable requirements. Pre-agreement costs may not be paid with funding assistance specified here unless they are authorized in HUD regulations or approved by waiver and listed in the special conditions to the Funding Approval. The Grantee agrees to assume all of the responsibilities for environmental review, decision making, and actions, as specified and required in regulations issued by the Secretary pursuant to Section 104(g) of Title I and published in 24 CFR Part 58. The Grantee further acknowledges its responsibility for adherence to the Agreement by sub-recipient entities to which it makes funding assistance hereunder available.

U.S. Department of Housing and Urban Development (By Name) Robert L. Paquin		Grantee Name Thomas P. Koch	
Title Director		Title Mayor of Quincy	
Signature	Date 07-29-10	Signature	Date 8-10-10

7. Category of Title I Assistance for this Funding Action (check only one) ☒ a. Entitlement, Sec 106(b) ☐ b. State-Administered, Sec 106(d)(1) ☐ c. HUD-Administered Small Cities, Sec 106(d)(2)(B) ☐ d. Indian CDBG Programs, Sec 106(a)(1) ☐ e. Surplus Urban Renewal Funds, Sec 112(b) ☐ f. Special Purpose Grants, Sec 107 ☐ g. Loan Guarantee, Sec 108	8. Special Conditions (check one) ☒ None ☐ Attached	9a. Date HUD Received Submission 05-13-10 9b. Date Grantee Notified 9c. Date of Start of Program Year 07-01-10	10. Check one ☒ a. Orig. Funding Approval ☐ b. Amendment Number

11. Amount of Community Development Block Grant

		FY 2010	FY	FY
a.	Funds Reserved for this Grantee	$2,238,378.00		
b.	Funds now being Approved	$2,238,378.00		
c.	Reservation to be Canceled (11a minus 11b)			

12a. Amount of Loan Guarantee Commitment now being Approved	12b. Name and complete Address of Public Agency
Loan Guarantee Acceptance Provisions for Designated Agencies: The public agency hereby accepts the Grant Agreement executed by the Department Housing and Urban Development on the above date with respect to the above grant number(s) as Grantee designated to receive loan guarantee assistance, and agrees to comply with the terms and conditions of the Agreement, applicable regulations, and other requirements of HUD now or hereafter in effect, pertaining to the assistance provided it.	12c. Name of Authorized Official for Designated Public Agency Title Signature Date

HUD Accounting use Only

Batch	TAC	Program	Y	A	Reg	Area	Document No.	Project Number	Category	Amount	Effective Date	F
	153 176							ffffffff				
			Y					Project Number		Amount		
			Y					Project Number		Amount		

Date Entered PAS	Date Entered LOCCS	Batch Number	Transaction Code	Entered By	Verified By

24 CFR 570

form HUD-7082 (4/93)

APPENDIX C

Department of Energy Contract Provisions,
10 CFR, Part 600

ATTACHMENT H

These requirements are listed at 10 CFR Part 600 Subpart B Uniform Adminstrative Requirements for Grants and Cooperative Agreements with Institutions of Higher Education, Hospitals and other Nonprofit Organizations, Appendix A "Contract Provisions"

1. *Equal Employment Opportunity* —The Subrecipient shall comply with E.O. 11246, "Equal Employment Opportunity," as amended by E.O. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and as supplemented by regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

Create

New form

2. *Copeland "Anti-Kickback" Act (18 U.S.C. 874 and 40 U.S.C. 276c)*— The Subrecipient shall ensure that all contracts and subgrants in excess of $2000 for construction or repair awarded by recipients and subrecipients shall include a provision for compliance with the Copeland "Anti-Kickback" Act (18 U.S.C. 874), as supplemented by Department of Labor regulations (29 CFR part 3, "Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in part by Loans or Grants from the United States"). The Act provides that each contractor or subrecipient shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he is otherwise entitled. The recipient shall report all suspected or reported violations to the Federal awarding agency.
3. *Davis-Bacon Act, as amended (40 U.S.C. 276a to a-7)* —When required by Federal program legislation, all construction contracts awarded by the recipients and subrecipients of more than $2000 shall include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 276a to a-7) and as supplemented by Department of Labor regulations (29 CFR part 5, "Labor Standards Provisions Applicable to Contracts Governing Federally Financed and Assisted Construction"). Under this Act, contractors shall be required to pay wages to laborers and mechanics at a rate not less than the minimum wages specified in a wage determination made by the Secretary of Labor. In addition, contractors shall be required to pay wages not less than once a week. The recipient shall place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation and the award of a contract shall be conditioned upon the acceptance of the wage determination. The recipient shall report all suspected or reported violations to the Federal awarding agency.
4. *Contract Work Hours and Safety Standards Act (40 U.S.C. 327–333)* —Where applicable, all contracts awarded by recipients in excess of $2000 for construction contracts and in excess of $2500 for other contracts that involve the employment of mechanics or laborers shall include a provision for compliance with sections 102 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327–333), as supplemented by Department of Labor regulations (29 CFR part 5). Under section 102 of the Act, each contractor shall be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible

provided that the worker is compensated at a rate of not less than 11/2times the basic rate of pay for all hours worked in excess of 40 hours in the work week. Section 107 of the Act is applicable to construction work and provides that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

5. *Rights to Inventions Made Under a Contract or Agreement*—Contracts or agreements for the performance of experimental, developmental, or research work shall provide for the rights of the Federal Government and the recipient in any resulting invention in accordance with 37 CFR part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

6. *Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), as amended*—Contracts and subgrants of amounts in excess of $100,000 shall contain a provision that requires the recipient to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401 et seq.) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251 et seq.). Violations shall be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

7. *Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)*— Contractors who apply or bid for an award of $100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient.

8. *Debarment and Suspension (E.O.s 12549 and 12689)*— Contract awards that exceed the small purchase threshold and certain other contract awards shall not be made to parties listed on the nonprocurement portion of the General Services Administration's List of parties Excluded from Federal Procurement or Nonprocurement Programs in accordance with E.O.s 12549 and 12689, "Debarment and Suspension." This list contains the names of parties debarred, suspended, or otherwise excluded by agencies, and contractors declared ineligible under statutory or regulatory authority other than E.O. 12549. Contractors with awards that exceed the small purchase threshold shall provide the required certification regarding its exclusion status and that of its principals.

DIVISION TWO INDEX
TECHNICAL SPECIFICATIONS

Section No.	Description/Title	Pay Item No.
02100	Site Preparation	101.2
02105	Tree, Tree Stump and Root Removal	102.09
02120	Unclassified Excavation	120.1
	Bituminous/Cement Concrete Excavation	129.11
02130	Bituminous Concrete Excavation By Cold Planing	129.
02140	Drainage Structure Removed	146.
	Sanitary Sewer Manhole Removed	146.1
02150	Gravel Borrow for Sidewalks	151.22
02170	Fine Grading & Compaction of Sub-Grade/Sub-Base Areas	170.
02210	Catch Basins	201.5
	Drain Manholes	202.5
	Sanitary Sewer Manholes	202.7
02220	Drainage Structure, Adjusted	220.
	Sanitary Structure, Adjusted	220.7
	Drainage Structure Remodeled	220.5
	Replacement Frame w/ Grate or Cover	222.
02240	12-Inch Reinforced Concrete Pipe (Class IV)	243.12
	8-Inch PVC Sanitary Pipe	248.8
	10-Inch PVC Drainage Pipe	248.10
02350	Gate Box Adjusted	358.
	Hydrant – Remove and Reset	376.2
	Service Box	381.
02400	Dense Graded Crushed Stone	402.
02410	Gravel for Base Course	405.
02420	Class I Bituminous Concrete Type I-1 (Base Course)	420.
02460	Class I Bituminous Concrete Pavement, Type I-1, for Top Course	460.
	Class I Bituminous Concrete Pavement, Type I-1, for Leveling Course	460.5
	Bitumen for Tack/Prime Coat	463.
02470	Hot Mix Asphalt For Misc. Use	472.

Section No.	Description/Title	Pay Item No.
02480	Sawing Pavement and Sidewalk Joints	482.3
02505	Granite Curb-Type VA-3 Straight	503.
	Granite Curb-Type VA-3 Curved	503.1
02510	Granite Transition Curb Straight for Wheelchair Ramps	516.51
	Granite Transition Curb Curved for Wheelchair Ramps	516.52
	Granite Curb Corner	517.
02580	Curb Removed & Reset	580.
	Curb Corner Removed & Reset	583.
02590	Granite Curb Removed & Stacked	590.
02705	Cement Concrete Sidewalk - 1 course	701.
	Cement Concrete Sidewalk at Driveway	701.1
	Cement Concrete Wheelchair Ramps	701.31
02710	Inlaid Thermoplastic Asphalt Pavement Marking System	702.3
02720	Trash Receptacle Removed and Reset	707.25
	Mail Box Removed and Reset	715.1
02740	Mobilization/Demobilization	748.
02750	Loam Borrow	751.
02755	Structural Soil Mix	755.
02765	Seeding	765.
02800	2-Inch Electrical Conduit Type NM – Plastic – (UL) (Single)	804.2
	3-Inch Electrical Conduit Type NM – Plastic – (UL) (Single)	804.3
	3-Inch Electrical Conduit Type NM – Plastic – (UL) (Double)	804.32
02811	Pull Box 12 Inches X 12 Inches – SD 2.031	811.31
	Pull Box 12 Inches X 24 Inches	811.324
02815	Mast Arm Footing Cost Adjustment	815.981
02816	Traffic Control Signal Reconstruction	816.01
	Flashing Warning Beacon Removed and Stacked	816.80
02830	Warning, Regulatory Signs and Route Markers (Aluminum) – Type A	832.1
02840	Sign Support (Not Guide) and Route Marker -Steel	847.1
	Street Name Sign (Aluminum) With 2" Diameter Post (Steel)	847.41

Section No.	Description/Title	Pay Item No.
02850	Safety Controls for Construction Operations	851.
	Safety Signing For Construction Operations	852.
	Portable Breakaway Barricade Type III	853.1
	Reflectorized Drum	859.
	Reflectorized Drum with Flasher	859.1
	Temporary Pavement Markings – 4 Inch (Painted)	854.014
	Temporary Pavement Markings – 12 Inch (Painted)	854.017
	Temporary Pavement Markings – 4 Inch (Removable Tape)	854.034
	Temporary Pavement Markings (4-12 inches wide)	854.046
	Pavement Marking Removal	854.1
02860	4-in. Reflectorized White Line (Thermoplastic)	866.04
	12-in. Reflectorized White Line (Thermoplastic)	866.12
	4-in. Reflectorized Yellow Line (Thermoplastic)	867.04
02870	Street Name Sign	874.
	King Square Monument Sign Removed and Reset	874.211
	Daley Square Monument Sign Removed and Reset	874.212
	Davis Square Monument Sign Removed and Reset	874.213
	Miscellaneous Signs Removed and Reset	874.45
	Miscellaneous Signs Removed and Stacked	874.5
02905	Concrete for Miscellaneous Uses	904.
02910	Bench	910.
	Trash Receptacle	911.
	Landscaped Planter	913.
	Landscaped Treeway (3'x24')	913.1
	Landscaped Treeway (3'x12')	913.2
02990	Traffic Police Details	999.001

*** END OF SECTION ***