PROJECT MANUAL

FOR

CAPILLO PARK AND MCCANN FIELDS UPGRADES

SOUTHBRIDGE, MASSACHUSETTS

DATE: JUNE 22, 2022

TOWN OF SOUTHBRIDGE
41 ELM STREET
SOUTHBRIDGE, MA 01550

Prepared by:

BSC GROUP

655 Winding Brook Drive
Glastonbury, CT 06033

Town of Southbridge

Advertisement for Sealed Bids

Capillo Park and McCann Fields Upgrades

Sealed bids for Capillo Park and McCann Fields Upgrades will be received by the Town Manager's Office, 41 Elm Street, Southbridge, MA 01550 until 1 P.M. EST on July 14, 2022, at which time the bids received will be publicly opened and read in the Town Council Chambers. The bid specifications can be found by going to _____ or by emailing graducha@southbridgemass.org or calling 508-764-5405. Documents are only available electronically.

Capillo Park and McCann Fields Upgrades will include constructing handballs courts, an ADA path, a skatepark, with an ADA swing, lighting, and baseball field upgrades. A pre-bid meeting will be held on Wednesday, June 29th, at 10:00 AM at the Capillo Park parking lot. Any potential bidders interested in a pre-bid meeting are welcome to attend.

This project is being funded using PARC grant funds, CDBG FY20 funds, and CDBG FY21 funds.

The Town reserves the right to reject any and all bids, to negotiate any and all contract terms with the successful proposer, or to cancel this proposal at any time if it is in the Town's best interest to do so. Any contract agreement must be approved by the Southbridge Town Council.

TOWN OF SOUTHBRIDGE

CAPILLO PARK AND MCCANN FIELDS UPGRADES

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SECTION 00 2113
INSTRUCTIONS TO BIDDERS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. General Instructions for Bidders.

1.2 DEFINED TERMS

A. The Owner shall be TOWN OF SOUTHBRIDGE (hereinafter “The Owner”).

B. The Engineer means the Owner acting through an authorized representative.

C. The Site shall mean the location of the work contemplated under the contract, as defined by the limits of the work identified in the Bid Documents.

1.3 COPIES OF BIDDING DOCUMENTS

A. One copy of the Bidding Documents will be provided to Bidders. Additional copies are the responsibility of Bidders.

B. Complete sets of Bidding Documents shall be used in preparing Bids; The Owner and Engineer assume no responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

C. The Owner and Engineer in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

1.4 QUALIFICATIONS OF BIDDERS

A. Bidders shall have the necessary equipment and shall possess sufficient capital to properly execute the work within the time allowed. The Owner reserves the right to reject any Bid if the evidence submitted by, or investigation of such Bidder fails to satisfy The Owner that such Bidder is properly qualified to carry out the obligations of the Contract and to complete the work contemplated therein.

1.5 EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA, AND SITE

A. It is the responsibility of each Bidder before submitting a Bid to:

1. Examine and carefully study the Bid Documents, including any Addenda and the other related data identified in the Bid Documents.

2. Visit the Site, become familiar with and satisfy Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

3. Become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, or performance of the Work.

4. Carefully study all reports of surveys, explorations and tests of existing conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site.

5. Obtain and carefully study (or assume responsibility for doing so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions at or contiguous to the Site which may affect cost, progress, or performance of the work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bid Documents, and safety precautions and programs incident thereto.

6. Agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the work at the price bid and within the times and in accordance with the other terms and conditions of the Bid Documents.

7. Correlate the information known to Bidder, information and observations obtained from visits to the site, reports and drawings identified in the Bid Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bid Documents.

8. Promptly give The Owner written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bid Documents and confirm that the written resolution thereof by Contractor is acceptable to Bidder.

9. Determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.

B. As indicated in Article 5 herein, The Owner will provide Bidder access to the Site to conduct such visual examinations as Bidder deems necessary for submission of a Bid.

C. Underground Facilities

1. Information and data shown or indicated in the Bid Documents with respect to existing underground facilities at or contiguous to the site is based upon information and data furnished to The Owner by others. The location of all Underground Facilities should be considered approximate. The Contractor, as part of his work, is solely responsible for the verification of the location and nature of all subsurface utilities at the project site which are to be terminated or otherwise affected by the work.

D. The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the bid is premised upon performing and furnishing the work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given The Owner written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by The Owner are acceptable to Bidder, and that the Bid Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and finishing the work.

1.6 PRE-BID CONFERENCE

A. **A pre-bid conference will be held at 10:00 a.m. on June 29, 2022 at the Project Site, Capillo Park parking lot, Southbridge, MA.** Bidders are required to attend and participate in the conference. The Owner will transmit to all prospective Bidders Addenda as the Owner considers necessary in response to questions arising at the pre-bid conference. Oral statements may not be relied upon and will not be binding or legally effective.

1.7 SITE AND OTHER AREAS

A. The Site is identified in the Bid Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the work are to be obtained and paid for by Contractor.

1.8 INTERPRETATIONS AND ADDENDA

A. All questions about the meaning or intent of the Bid Documents shall be submitted to the Engineer in writing at the following address:

BSC Group
655 Winding Brook Drive
Glastonbury, CT 06033
Attention: Rachel Salch, Email: rsalch@bscgroup.com

B. In order to receive consideration, questions must be received by The Owner at least three days prior to the date fixed for the opening of Bids. Interpretations or clarifications considered necessary by The Owner in response to such questions will be issued by Addenda faxed and mailed to all invited Bidders not later than two days prior to the date fixed for the opening of Bids. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

C. Addenda may be issued to clarify, correct or change the Bid Documents. Such Addenda, if any, will be issued in the manner and within the time period stated herein.

D. The Bidder must acknowledge receipt of each Addendum, if any, in the space provided on the Bid Form.

1.9 BID SECURITY

A. Bid Security is required. Refer to Specification Section 00 4313.

1.10 CONTRACT TIME

A. All work shall be 100% Completed and ready for final payment by November 30, 2022.

1.11 LIQUIDATED DAMAGES

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

1.12 SUBSTITUTE AND "OR EQUAL" ITEMS

A. The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bid Documents without consideration of possible substitute or "or equal" items. Whenever it is specified or described in the Bid Documents that a substitute or "or

equal" item of material or equipment may be furnished or used by Contractor if acceptable to The Owner, application for such acceptance will not be considered by The Owner until after the effective date of the Agreement.

1.13 PREPARATION OF BID

A. A Bid must be made on the Bid Form included with the Project Manual. The Bid Form shall not be altered in any way. Each copy of the Bid Documents contains a separate, unbound copy of the Bid Form to be used for submittal.

B. The Bid Form must be completed in ink. Blank spaces in the Bid Form must be filled in correctly where indicated, and the Bidder must state, both in words and numerals, the prices for which he proposes to do each and every item of Work. Ditto marks shall not be used.

C. A Bidder shall execute his Bid as stated below.

1. A Bid by an individual shall show his name and official address.

2. A Bid by a partnership must be executed in the partnership name and signed by a partner accompanied by evidence of authority to sign. His title must appear under this signature and the official address of the partnership shall be shown.

3. A Bid by a corporation must be executed in the corporate name by an officer of the corporation and must be accompanied by a certified copy of a resolution of the board of directors authorizing the person signing the Bid to do so on behalf of the corporation. The corporate seal shall be affixed and attested by the secretary. The state of incorporation and the official corporate address shall be shown.

4. All names must be printed below the signature.

5. The Bid shall contain an acknowledgment of the receipt of all Addenda in the space provided on the Bid Form.

6. The address and telephone number to which communications regarding the Bid are to be directed shall be shown.

D. The following listed documents shall be submitted in addition to the Bid Form:

1. Vendor Information Form.

2. Qualifications/Rates

E. In order to be considered for selection, the Bidder must submit a complete bid package in accordance with these Bid Documents. Partial Bids will not be accepted.

F. Any deviations in completion of the Bid Form and accompanying documents from the instructions provided in this Article 12 may be cause for rejection of the Bid.

1.14 BASIS OF BID

A. Lump Sum

1. Bidders shall submit a Bid on a lump sum basis for the indicated items as set forth in the Bid form.

B. Unit Price

1. Bidders shall submit a Bid on a unit price basis for each item of unit price Work listed in the Bid Form.

2. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.

C. The Total Proposed Contract Price will be the Lump Sum Bid and any Unit Price Bid Items specifically intended to be, as indicated on the Bid Form, part of the Total Proposed Contract Price.

1.15 SUBMITTAL OF BID

A. A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the Invitation to Bid and shall be enclosed in a sealed envelope plainly marked with the Project title, the name and address of Bidder, and shall be accompanied by other required forms and/or documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate envelope plainly marked on the outside with the notation "BID ENCLOSED". A mailed Bid shall be addressed to:

TOWN OF SOUTHBRIDGE
41 ELM STREET
SOUTHBRIDGE, MA 01550

1.16 MODIFICATION OR WITHDRAWAL OF BID

A. Withdrawal Prior to Bid Opening

1. A Bidder may withdraw his Bid before the time fixed for the opening of Bids by communicating his purpose in writing to The Owner. Upon receipt of such written notice, the unopened Bid will be returned to the Bidder.

B. Modification Prior to Bid Opening

1. If a Bidder wishes to modify his Bid, he must withdraw his initial Bid in the manner specified in paragraph 15.1.A and submit a new Bid.

1.17 OPENING OF BIDS

A. Bids will be opened as indicated in the Invitation to Bid by the Owner.

B. In order to be considered for selection, Bids must arrive at the designated location on or before the date and time specified in the Invitation to Bid. Bidders mailing their Bids should allow for normal mail delivery time to ensure timely receipt of their Bid.

1.18 DISQUALIFICATION OF BIDDERS

A. More than one Bid for the same work from an individual, or a firm, partnership, corporation or an association under the same or different names will not be considered. Reasonable grounds for believing that any Bidder is interested in more than one Bid for the work may be

cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder is interested.

1.19 BIDS TO REMAIN OPEN

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

1.20 AWARD OF CONTRACT

A. The Owner reserves the right to reject any and all Bids, to waive any and all informalities, and the right to disregard all nonconforming, nonresponsive or conditional Bids.

B. The Owner reserves the right to reject any Bid not accompanied by specified documentation.

C. The Owner reserves the right to reject any Bid if it shows any omissions, alterations of form, additions not called for, conditions or qualifications, or irregularities of any kind.

D. The Owner reserves the right to reject any Bid that, in his sole discretion, is considered to be unbalanced or unreasonable as to the amount bid for any lump sum or unit price item.

E. In evaluating Bids, discrepancies between words and figures will be resolved in favor of words. Discrepancies in the multiplication of units of work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

F. In evaluating Bids, the Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the notice of award.

G. In evaluating Bids, the Owner may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for the work.

H. The Owner may conduct such investigations as it deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities to perform the work in accordance with the Contract Documents.

I. The Owner reserves the right to award the Contract on the basis which it deems to be most favorable to itself, or to award no Contract.

J. Contents of the Bid of the Successful Bidder will become part of any Contract awarded.

1.21 CONTRACT SECURITIES

A. A Performance Bonds is required. Refer to Specification Section 00 6113.

1.22 CONTRACT INSURANCE

A. The requirements for insurance to be provided by Contractor are indicated in the Bid Documents.

1.23 EXECUTION OF AGREEMENT

A. When the Owner gives a notice of award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement with the other Contract Documents which are identified in the Agreement. Within ten (10) days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to The Owner. Within ten (10) days thereafter, The Owner will deliver one fully signed counterpart to Successful Bidder with a complete set of the Drawings with appropriate identification along with a formal notice to proceed.

1.24 SALES TAXES

A. All materials provided under this Contract are subject to the Sales and Use Taxes of the State of Massachusetts.

END OF SECTION

SECTION 004100

BID FORM

PROJECT IDENTIFICATION:

Capillo Park and McCann Fields Upgrades
1-45 Henry Street
Southridge, MA

THIS BID IS SUBMITTED TO OWNER:

Town of Southbridge
41 Elm Street
Southbridge, MA 01550

THIS BID IS SUBMITTED BY:

_____
(Company Name)

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

2. Bidder accepts all of the terms and conditions of the Invitation to Bid and Instructions to Bidders, including without limitation, those dealing with the disposition of Bid Security. The Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

3. In submitting this Bid, Bidder represents that:

   A. Bidder has examined and carefully studied the Bidding Documents entitled **"CAPILLO PARK AND MCCANN FIELDS UPGRADES"**, dated **JUNE 22, 2022** the other related data identified in the Bidding Documents and the following Addenda, receipt of which is hereby acknowledged

(enter data as appropriate)

Addendum No.	Addendum Date
_____	_____
_____	_____
_____	_____
_____	_____

B. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.

C. Bidder has examined copies of, and familiarized itself with, the nature and extent of the Contract Documents, Work, project site, locality, and all local conditions, laws and regulations, that in any manner may affect cost, progress, performance or furnishing of the Work.

D. Bidder is familiar with and is satisfied as to all Federal, State and local Laws and Regulations that may affect cost, progress and performance of the Work.

E. Bidder has obtained and carefully studied (or accepts the consequences for not doing so) all reports of explorations, tests, examinations, investigations, studies and data concerning physical conditions at the project site which may affect cost, progress, performance, or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by Bidder, and safety precautions and programs incident thereto as Bidder considers necessary for performance of furnishing the Work at the contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents.

F. Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.

G. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.

H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Engineer is acceptable to Bidder.

4. Bidder agrees that the Work will be substantially completed and ready for final payment on or before the dates or within the number of calendar days indicated in the Agreement.

5. Bidder proposes to furnish all labor and materials required for the project in accordance with the accompanying Bidding Documents for the Contract Prices specified below, subject to additions and deductions according to the terms of the Bidding Documents.

   A. Bidder proposes the following:

All blank spaces must be filled in, in ink and in both words and figures where required. No changes shall be made in the wording or numbering. Written amounts shall govern where the amount stated in writing and the amount stated in figures does not agree.

BASE BID

BID ITEM 1 - EROSION AND SEDIMENTATION CONTROLS

The Total Proposed Lump Sum Contract Price (exclusive of deduct/add alternates and unit price items) for this Bid Item is:

_____ dollars (words)

$ _____ (figures)

BID ITEM 2 – SITE PREPARATION

The Total Proposed Lump Sum Contract Price (exclusive of deduct/add alternates and unit price items) for this Bid Item is:

_____ dollars (words)

$ _____ (figures)

BID ITEM 3 – SITE IMPROVEMENTS

The Total Proposed Lump Sum Contract Price (exclusive of deduct/add alternates and unit price items) for this Bid Item is:

_____ dollars (words)

$ _____ (figures)

TOTAL LUMP SUM BID (Sum of all Bid Items listed above):

The Total Proposed Lump Sum Bid Price (exclusive of deduct/add alternates and unit prices) is:

_____ dollars (words)

$ _____ (figures)

ALTERNATES

ALTERNATE BID ITEM 1 – PLAYGROUND AND FITNESS EQUIPMENT

The Total Proposed Lump Sum Contract Price for this Alternate Bid Item is:

_____ dollars (words)

$ _____ (figures)

UNIT PRICES

Proposed Unit Prices for this Bid (indicate dollars and cents in numeric figures) are:

Unit Price 1 – Unclassified Excavation	$_____	per Cubic Yard
Unit Price 2 - Import Gravel Borrow	$_____	per Cubic Yard
Unit Price 3- HMA Binder Course	$_____	per Ton
Unit Price 4- HMA Binder Wearing Course	$_____	per Ton

Note: This is a lump sum bid. Unit prices will not be used to calculate bid price.

6. In submitting this proposal, Bidder agrees to the following:
   A. This bid will remain subject to acceptance for **sixty (60) days** after the Bid due date. Bidder will sign and submit the agreement with the Bonds, Insurance Certificate, and other documents required within ten (10) days after the date of Owner's Notice of Award.
   B. To enter into an Agreement with the Owner which shall constitute a valid and binding Contract, in the form included in the Project Manual, to perform and furnish all work as specified or indicated in the Contract Documents for the Contract Price and within the Contract time indicated in this bid and in accordance with the other terms and conditions of the Contract Documents.
   C. To accomplish the work in accordance with the Contract Documents.
   D. To begin and complete the Work in accordance with the dates and/or contract times indicated in the Bidding Document.
7. Bidder hereby certifies that:
   A. That this Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
   B. Bidder has not induced or solicited any person, firm or corporation to refrain from bidding. Bidder has not sought by collusion to obtain for itself any advantages over any other Bidder or over Owner.
   C. Bidder 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 Bidder will comply fully with all applicable laws and regulations.
   D. Bidder is not presently debarred from doing public construction work in the State of Connecticut under the provisions of or any other applicable debarment provisions of any other chapter of the General Laws or any rule or regulation promulgated thereunder.
   E. That Bidder has filed all State tax returns and paid all State taxes required by law.
   F. 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.

G. Bidder will submit written evidence of its authority to do business in the State where the Project is located not later than the date of its execution of the Agreement.

8. Bidder further represents that:

   A. this bid is genuine and not made in the interest of or on the behalf of any undisclosed individual or entity;

   B. Bidder has not directly or indirectly induced or solicited any other bidder to submit a false or sham bid;

   C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and

   D. Bidder has not sought by collusion to obtain for itself any advantage over any other bidder or over owner.

9. Owner reserves the right to reject any and all Bids, to waive any and all informalities not involving price, time or changes in the Work and to negotiate contract terms with the Successful Bidder, and the right to disregard all non-conforming, non-responsive, unbalanced or conditional Bids. Also, Owner reserves the right to reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make and award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by Owner.

This Bid Hereby Submitted:

Date: _____

_____
(Print Name of Firm Submitting Bid)

_____
(Signature of Authorized Representative)

_____
(Print Name and Title of Authorized Representative)

_____
(Business Address)

Federal Identification Number:

_____

_____
(City, State and Zip Code)

_____
Phone No.:

_____
E-mail:

Attachments included with this Bid Form:

Non-Collusive Affidavit
W-9 Form
Bid Bond
Bidder's Statement of Qualifications

SECTION 00 4313

BID BOND

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Requirements for a Bid Bond that provides security to Owner associated with award of the project and subsequent execution of a Construction Contract.

2. See attached Bid Bond.

1.2 DEFINITIONS

A. Owner: Town of Southbridge, 41 Elm St., Southbridge, MA 01550.

B. Principal: The entity submitting the Bid to perform the work of the project.

C. Project: Capillo Park and McCann Fields Upgrades as described in bid documents dated June 22, 2022 and any amendments or supplements thereto.

D. Surety: The Surety shall mean the party who guarantees the performance of the Principal. Surety shall have the same meaning as "Bonding Company".

1.3 BOND REQUREMENTS

A. Bidder shall submit with his Bid to Owner, a surety company Bond for the Penal Amount as defined herein. The form of the Bond shall be as attached, or as otherwise mutually agreed-to by Owner and Principal.

B. The Bond shall provide for the Surety to complete the Work of the Contract in accordance with its Terms, or provide sufficient funds up to the penal amount for such completion.

1.4 BOND AMOUNT

A. Penal Amount: The Penal Amount shall de defined as five percent (5%) of the Contract Sum as dictated by the Principal's Bid submission.

1.5 SURETY REQUIREMENTS

A. The surety must be a corporate surety licensed to sign surety bonds in the State of Massachusetts. Rating of the surety shall be at least an "A" as defined by the A.M. Best Company's "Best's Key Rating Guide" and shall meet the approval of the Owner.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

BID BOND

KNOW ALL MEN BY THESE PRESENTS,

That we, _____, hereinafter called the Principal,

of _____, as Principal,

and, _____hereinafter called Surety,

a corporation organized and existing under the laws of the State of_____, and duly authorized to transact a surety business in the State of Massachusetts, as Surety, are held and firmly bound unto _____, the Owner, as Obligee, in the penal sum of _____ Dollars, lawful money of the United States of America, for the payment of which, well and truly to be made to the Obligee, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal has submitted the

Accompanying Bid, dated _____ 20_____, for the following project:

Capillo Park and McCann Fields Upgrades, dated June 22, 2022

NOW THEREFORE, if the Principal shall not withdraw said Bid within the period specified therein after the opening of the same, or within any extended time period agreed to by the Principal, Surety and Owner, or, if no period be specified, within thirty (30) days after the said opening, and shall within the period specified therefore, or if no period be specified, within ten (10) days after the prescribed forms are presented to him for signature, enter into a written Contract with the Owner in accordance with the Bid as accepted, and give bond with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such Contract; then the above obligation shall be null and void and of no effect, otherwise to remain in full force or virtue.

Failure to comply with the aforementioned condition shall result in the forfeiture of this Bid Bond as liquidated damages.

No extension of time or other modification of this Bid Bond shall be valid unless agreed to in writing by the parties of this Bond.

IN WITNESS WHEREOF, the above-bounded parties have executed this instrument under their several seals this _____ day of _____, 20_____, the name and corporate seal of each corporate party being hereto affixed and these presents signed by its undersigned representative, pursuant to authority of its governing body.

Principal: _____ Surety: _____
(Name of Firm) (Name of Firm)

By: _____ By: _____

Title: _____ Title: _____

Sworn and subscribed before me on this
_____ day of _____, 20_____.

_____
Commissioner of the Superior Court or Notary Public

_____
My Commission Expires

Address for Notices:

_____

_____

_____

NOTE: The signature of the person executing the Bid Bond must be notarized. If an attorney-in-fact executes the Bid Bond on behalf of the surety, a copy of the current power of attorney bearing the notarized signature of the appropriate corporate officer must also be included with the Bid Bond.

SECTION 00 4513

BIDDER'S STATEMENT OF QUALIFICATIONS

All questions must be answered and the data given must be clear and comprehensive. The cover sheet must be notarized. If necessary, questions may be answered on separate sheets. Contractor may submit any additional information he desires.

Attachments:

1. Complete the attached References Form.

Information Required (*type or print clearly in blue or black ink*)

1. Name of Contractor.

_____

2. Permanent main office address.

_____

_____

_____

3. When were you organized (month/year): _____

4. How many years have you been engaged in the contracting business under your present firm or trade name?

_____years

5. If a corporation, indicate the following:

   Date of Incorporation: _____ State or Incorporation: _____

   President (or other chief executive as applicable): _____

6. If a Partnership, indicate the following:

   Date of Organization: _____

   Type of Partnership: _____

Names and Addresses of Partners/Officers:

1. _____ 2. _____

_____ _____

_____ _____

3. _____ 4. _____

_____ _____

_____ _____

5. _____ 6. _____

_____ _____

_____ _____

6. General character of work performed by your company.

_____

_____

_____

_____

_____

7. Have you ever failed to complete a project? If yes, identify the project(s) and provide an explanation.

_____

_____

_____

_____

_____

8. Have you ever defaulted on a contract? If yes, identify the project(s) and provide an explanation.

_____

_____

9. Contracts on hand: (Show the contract amount of each contract and the anticipated date of completion; attach additional sheets if necessary.)

   1. _____

   2. _____

   3. _____

   4. _____

   5. _____

   6. _____

   7. _____

   8. _____

   9. _____

   10. _____

10. List your major equipment available for this Contract.

_____

_____

11. List the work to be performed by subcontractors and summarize the dollar value of each subcontract.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

12. Do you have adequate resources to complete the project within the required schedule and/or by the required completion date? Yes ☐ No ☐

13. Complete the attached **References Form** to list (at a minimum) references for projects completed, surety company reference, and bank reference.

14. Will you, upon request, fill out a detailed financial statement and furnish any other information that may be required by the Town? Yes ☐ No ☐

The undersigned hereby authorizes and requests any persons, firm, or corporation to furnish any information requested by the Owner in verification of the recitals comprising this Statement of Bidder's Qualifications.

Dated at _____this _____ day of _____, 20_____,

_____
(Name of Bidder)

By: _____

Title: _____

State of _____)
SS:
County of _____)

_____ being duly sworn, deposes and

says that he is _____ of

and that the answers to the foregoing questions and all statements therein are true and correct

and sworn under penalties of perjury.

Subscribed and sworn to before me this _____ day of _____ 20____.

(Notary Seal)

_____
(Notary Signature)

My Commission Expires:_____

REFERENCES

The Bidder is required to fill out the following form to enable the Town to make inquiries and judge as to the Bidder's experience, skill, available financial resources, credit, and business standing.

ITEM 1

List five (5) projects of similar nature to the project described herein that the Bidder has completed, with name, address, and telephone number of a reference for each project. Include approximate construction cost:

Project 1: _____

Brief Description: _____

Contract Value: _____ Date Completed: _____

Reference:

Name: _____ Phone No. _____

Address: _____

Project 2: _____

Brief Description: _____

Contract Value: _____ Date Completed: _____

Reference:

Name: _____ Phone No. _____

Address: _____

Project 3: _____

Brief Description: _____

Contract Value: _____ Date Completed: _____

Reference:

Name: _____ Phone No. _____

Address: _____

Project 4: _____

Brief Description: _____

Contract Value: _____ Date Completed: _____

Reference:

Name: _____ Phone No. _____

Address: _____

Project 5: _____

Brief Description: _____

Contract Value: _____ Date Completed: _____

Reference:

Name: _____ Phone No. _____

Address: _____

ITEM 2

List name, address, and telephone number for the following:

Surety 1: _____

Address: _____

Contact Name: _____ Phone No. _____

Surety 2: _____

Address: _____

Contact Name: _____ Phone No. _____

Bank: _____

Address: _____

Contact Name: _____ Phone No. _____

SECTION 00 4519

NON-COLLUSION AFFIDAVIT OF PRIME BIDDER

State of _____

County of _____

_____, being first duly sworn, deposes and says that:

1. He is _____ of

   _____, the Bidder who has submitted the attached bid;

2. He 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, representatives, employees, or parties in interest, including this affiant 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 the contract for which the attached bid has been submitted or refrain from bidding in connection with such contract, or has in any manner, directly or indirectly, sought agreement or collusion or communication or conference with any other bidder, firm or person to fix the price or prices in the attached bid or of any other bidder, or to fix any overhead, profit, or cost element of the bid price or the bid price of any bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the _____ (Owner), or any other person interested in the contract; and

5. The price or prices quoted in the attached bid are fair and proper and are not tainted by any 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 affiant.

_____
Signature

_____
Printed Name

_____
Title

Sworn and subscribed before me on this

_____ day of _____, 20 _____.

_____
Commissioner of the Superior Court or Notary Public

(Notary Seal)

_____
My Commission Expires

CONTRACT
FOR COMPLETION OF
PUBLIC WORKS IMPROVEMENTS
IN THE TOWN OF SOUTHBRIDGE

An Agreement made this _____day of _____, 20___, by and between the **Town of Southbridge**, a duly organized Massachusetts municipal corporation with a principal address of Town Hall, 41 Elm Street, Southbridge, MA 01550 (the "Town", or the "Awarding Authority") and _____ with a business address of _____ (the "Contractor").

WHEREAS, in accordance with MGL c. 30, §39M, the Town publicly solicited for bids for the completion of "_____" (the "Project");

WHEREAS, the Contractor submitted a bid to complete the Project that was acceptable to the Town; and

WHEREAS, by entering this Agreement, the Contractor represents to the Town that it has the skill, experience, equipment and manpower necessary to complete the Project in accordance with the terms and requirements set forth herein.

NOW THEREFORE, in consideration of the mutual exchange of promises set forth below and for other good and valuable consideration, the Town and the Contractor hereby agree as follows:

1. Scope of Work: The Contractor shall provide all labor, materials and equipment and perform all work required by the plans and specifications entitled: "_____," dated _____, 20___ and attached hereto as Exhibit A.

2. Commencement and Completion of the Project: The Contractor shall commence work under this Contract within five days from the date of execution of this Agreement (the date of Commencement). **The Contractor shall obtain Substantial Completion of the Project within _____ (__) days from the date of Commencement. Time is of the essence for the completion of the Project.**

   If the Contractor shall neglect, fail or refuse to complete the Work within the time herein specified, or any proper extension thereof granted by the Owner, then the Contractor does hereby agree, as a partial consideration for the awarding of this Contract, to pay to the Owner the sum of $_____ per day, not as a penalty but as liquidated damages for such breach of contract as hereinafter set forth, for each and every calendar day that the Contractor shall be in default after the time stipulated in the Contract for completing the Work.

3. Contract Sum: The Town shall pay the Contractor, in current funds, for the performance of the work, subject to Additions and Deductions by approved Change Order(s) (if any), the Contract Sum of:

_____Dollars
(words)

($_____).

[NOTE: If the Contract Sum is more than $25,000 a Payment Bond in the amount of 50% of the Contract Sum is required (MGL c. 149, §29), in the form attached.]

4. Payments and Retainage (MGL c. 30, §39F and §39G). The Contractor shall submit written invoices on a ***monthly*** basis and every invoice shall indicate the work completed and the percentage of work outstanding. The Contractor shall supply any additional information as may reasonably be required by the Owner to clarify, substantiate or otherwise explain the work completed or the amount payable. The Town shall make periodic payments to the Contractor in accordance with the provisions of MGL c. 30, §39G. **Periodic payments shall be subject to retainage of 5% of the approved amount of any periodic payment and any other deductions permitted or required by law.**

5. The Contract Documents: The following, together with this Agreement, form the Contract and all are as fully a part of the Contract as if attached to this Agreement or herein repeated: the Advertisement of the Invitation for Bids, the Bidding Documents, including the Contractor's completed Bid Form, the Contract Forms, **the Statutory Provisions for Public Construction in Massachusetts (attached hereto as Exhibit B)** and the Work/Project Specifications (if any).

6. Prevailing Wages: This Contract is subject to the Massachusetts Prevailing Wage Statute, MGL c. 149, §§26-27, inclusive, and the Contractor shall pay applicable wages as set forth in the schedule of wages included in the Bid Documents.

7. Substantial Completion and Project Closeout. Upon substantial completion of the work required by this Agreement, the Contractor shall present in writing to the Town its certification that the work has been substantially completed. Within 21 days thereafter, the Town will present to the Contractor either a written declaration that the work has been substantially completed or an itemized list of incomplete or unsatisfactory work items, in accordance with the provisions of MGL c. 30, §39G. The term "substantial completion" shall mean either that the work required by this contract has been completed except for work having a contract price of less than one per cent of the then adjusted total contract price, or substantially all of the work has been completed and opened to public use except for minor incomplete or unsatisfactory work items that do not materially impair the usefulness of the work required by the contract. The Project Closeout shall be in accordance with the provisions of MGL c. 30, §39G.

8. Insurance: Prior to commencing any work, the Contractor shall deliver to the Town/Owner evidence of insurance coverage in the amounts set forth in the Bidding Documents or, if not so specified, as follows:

    a. General Liability with minimum limits of $1,000,000 per occurrence/$2,000,000 aggregate written on an occurrence basis.

    b. Auto Liability (including owned, hired and non-owned autos): $1,000,000

combined single limit (each accident).

c. Excess Liability: $2,000,000 minimum limits in excess of underlying limits. The umbrella shall be no more restrictive than underlying coverage.

d. Worker's Compensation and Employer's Liability per Commonwealth of Massachusetts statutory limit.

The Contractor shall provide the Town with suitable evidence of the required insurance coverage prior to commencement of any work. This insurance shall be written by a company licensed to do business in the state of Massachusetts with a minimum A.M. Best rating of A- VII. Each policy shall provide for written notification to the Town at least thirty (30) days prior to termination, material change or restrictive amendments. The coverage's and limits are to be considered minimum requirements under this contract and in no way limit the liability of the Contractor.

9. Standard of Performance: The work performed under this Agreement shall be rendered in conformity with the standards of the trade and shall be professional and of the highest fabrication and installation quality in all respects. Substandard fabrication and installation quality shall be deemed a breach of this Agreement.

10. Guarantees:

(a) The Contractor guarantees the work under this Contract and the materials furnished by it for use in connection therewith to be free from defects or flaws for one year after the completion of the Contract. It is expressly understood, however, that this guarantee provision shall not absolve the Contractor from any liability to the Town arising out of a failure to substantially comply with the terms of the Contract.

(b) If at any time within said guaranty period, any part of the work constructed under the terms of this Contract shall in the opinion of the Town require repair due to defective work or materials furnished by the Contractor, the Town may notify the Contractor in writing to make the required repairs. If the Contractor shall neglect to start such repairs within ten days of the date of giving him notice thereof and to complete the same to the satisfaction of the Town with reasonable dispatch, then the latter may employ other persons to make such repairs. The Town shall charge the expense thereof to the Contractor and may use any moneys still retained to pay for the same, and if such sum is insufficient, the Contractor shall be obligated to pay the balance thereof

11. Massachusetts Law: This Agreement shall be construed in accordance with and shall be governed by the laws of the Commonwealth of Massachusetts. Any provision of this Agreement or the Contract Documents deemed to be inconsistent with state law shall be given no force or effect. In the event that a provision is deemed to be unlawful, it shall be severed from the Agreement, and at the option of the Awarding Authority, the balance of the provision and/or the Agreement shall continue in full force and effect.

12. Independent Contractor: The Town and the Contractor intend that the relationship established between them pursuant to this Contract shall be that of client and independent contractor. No agent, employee, or servant of the Contractor shall be or shall be deemed to be an employee, agent or servant of the Town.

13. Notices: All notices under this Contract shall be in writing and shall be deemed received (i) upon delivery in hand, (ii) one business day after being sent by reputable overnight delivery or courier service providing for receipted delivery, or (iii) two business days after being sent by certified or registered mail, return receipt requested, postage prepaid, or (iv) the same business day after being sent by facsimile during business hours of the Boylston Town Hall; and addressed as follows:

To the Town:

Town of Southbridge
Town Manager
Attention: Michael McCall
41 Elm St
Southbridge, MA 01550

To the Contractor:

_____
_____
_____

14. Indemnification: Notwithstanding the availability and policy limits of any insurance, the Contractor hereby agrees to defend, indemnify and hold harmless the Town, its officers and employees ("Indemnified Parties") against any claims made or legal actions brought against an Indemnified Party(ies) by any person or entity as a result of or arising from injuries, damages, expenses and losses actually or allegedly incurred by such a person or entity ("Liabilities") arising out of or relating to the Contractor's performance or failure to perform pursuant to this Contract, except where the Liabilities are the result of the Indemnified Party's own direct and sole negligence. This obligation shall survive the termination, completion or expiration of this Contract. The Contractor shall promptly notify the Town of any claim or action brought in connection with this Contract and thereupon shall promptly take over and defend any such claim or action.

15. Amendments: This Contract may be amended by a written amendment duly executed by the parties hereto. No modifications, waiver or alternation of the Contract or any term herein shall be enforceable unless it is in writing and duly executed by both the Town and the Contractor.

16. REAP Certification: Pursuant to Chapter 62(c), Section 49(a) of the general laws, the individual signing this Contract on behalf of the Contractor certifies, under the penalties of perjury, that, to the best of his/her knowledge and belief, the Contractor has complied with all laws of the Commonwealth of Massachusetts relating to taxes, reporting of employees and contractors, and withholding and remitting child support.

17. Entire Agreement: This Contract constitutes the entire agreement between the parties with respect to the matters addressed herein.

IN WITNESS WHEREOF, the Parties hereto intending to be legally bound have caused their duly authorized representatives to set hands and seals on the dates set forth below.

CONTACTOR:

By: _____ Date: _____

Name: _____
Title: _____

[Attach evidence of Corporate Authority]

AWARDING AUTHORITY:

Town of Southbridge

By: _____ Date: _____
(name) (title)

Certification Pursuant to MGL Ch. 44, Sec. 31C:

Funds for this Agreement are available
in Account No. _____

By: _____

[If the Contract Sum is more than $25,000, the attached form of Payment Bond must completed and in an amount no less than 50% of the total Contract Sum, or a greater amount if required by Bid Specifications/Requirements]

CONTRACTOR'S PAYMENT BOND

PROJECT: _____

PROJECT LOCATION: _____, MASSACHUSETTS

AWARDING AUTHORITY: TOWN OF SOUTHBRIDGE, MASSACHUSETTS

KNOW ALL PERSONS BY THESE PRESENTS:

That we, _____

as Principal, and _____

Surety, are held and firmly bound unto the Awarding Authority,

as Obligee, in the sum of

_____ Dollars,
(words)

$_____
(figures)

to be paid to the Obligee, for which payments, well and truly to be made, we bind ourselves, our respective heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

Whereas, the said Principal has made a Contract with the Obligee, bearing the date of _____, 20___, for the completion of the Project.

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

In witness whereof, the Principal and Surety have set their hands and seals this

_____ day of _____, 20__.

PRINCIPAL SURETY

(Name and Seal)	(Attorney-in-Fact – Seal)
(Title)	
Attest:	Attest:

END OF DOCUMENT

EXHIBIT B

STATUTORY PROVISIONS FOR PUBLIC CONSTRUCTION CONTRACTS IN MASSACHUSETTS

The following provisions are required by or are intended to be consistent with requirements of Massachusetts statutes governing public construction contracts in the Commonwealth of Massachusetts (hereinafter referred to as the "Commonwealth"). 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 contracts are provided for by statute, notwithstanding the fact that they are not provided for in the Contract.

In case of conflict between the provisions of these Statutory Provisions and other provisions in the Contract, the provisions of these Statutory Provisions shall govern. In case of conflict between the provisions of these Statutory Provisions and the provisions of any applicable statute, the statutory provisions shall govern.

Where the terms "Awarding Authority" or "Contracting Authority" appear in the following paragraphs, it shall be taken as meaning the Town. Where the term "General Contractor" appears in the following paragraphs, it shall be taken as meaning the Contractor.

ARTICLE I - PAYMENT, CONTRACT ADMINISTRATION, etc.

1.1 Specifications – "or equal" (Statutory reference: c. 30, §39M). Where products or materials are prescribed by manufacturer name, trade name, or catalog reference, the word "or approved equal" shall be understood to follow. An item shall be considered equal to the item so named or described if, in the opinion of the Architect:

a. it is at least equal in quality, durability, appearance, strength and design;

b. it performs at least equally the function imposed in the general design for the Work; and

c. it conforms substantially, even with deviations, to the detailed requirements for the items as indicated by the specifications.

Any structural or mechanical changes made necessary to accommodate substituted equipment under this paragraph shall be at the expense of the Contractor or Subcontractor responsible for the Work item. See other paragraphs of General and Supplement to General Conditions for procedures to be used in determining compliance with the standards of this paragraph.

1.2 Delays. (Statutory reference: c.30, §39O). This Paragraph 1.2 applies to every contract subject to M.G.L. c.30, §39M and to every contract subject to c.149, §§44A through 44H.

Except as otherwise provided by law and by this Paragraph 1.2, the Contractor shall not be entitled to damages on account of any hindrances or delays, avoidable or unavoidable; but if such delay be occasioned by the Awarding Authority, the Contractor may be

entitled to an extension of time only, in which to complete the Work, to be determined by the Architect. 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 Contractor for payment for an increase in the cost of his performance as provisions (a) and (b) give the Contractor against the Awarding Authority, but nothing in provisions (a) and (b) shall in any way change, modify or alter any other rights which the Contractor or the Subcontractor may have against each other.

(a) The Awarding Authority 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 Awarding Authority; provided, however, that if there is a suspension, delay or interruption for fifteen days or more or due to a failure of the Awarding Authority to act within the time specified in this Contract, the Awarding Authority shall make an adjustment in the contract price for any increase in the cost of performance of this contract but shall not include any profit to the Contractor on such increase; and provided further, that the Awarding Authority shall not make any adjustment in the contract price under this provision for any suspension, delay, interruption or failure to act to the extent that such is due to any cause for which this contract provides for an equitable adjustment of the contract price under any other contract provisions.

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

1.3 Deviations. (Statutory reference: M.G.L. c.30, §39I). This Paragraph 1.3 applies to every contract for the construction, alteration, maintenance, repair or demolition of, or addition to, any public building or public works for the Commonwealth or any political subdivision thereof.

The Contractor shall perform all the Work required by this contract in conformity with the plans and specifications contained herein. 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 Awarding Authority and the Contractor and the amount in dollars of said adjustment; and (4) that the deviation is in the best interest of the Awarding 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.

1.4 Finality of Decisions by Awarding, Authority or Architect (Statutory reference: M.G.L. c.30, §39J). This Paragraph 1.4 applies to every 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, district, board, commission, or other public body, when the amount of the contract exceeds the amount stated in M.G.L. c.30, §39J.

Notwithstanding any contrary provision of this contract, no decision by the Awarding Authority or by the Architect on a dispute, whether of fact or of law, arising under said contract shall 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.

1.5 Differing Site Conditions (Statutory reference: M.G.L. c.30, §39N). This Paragraph 1.5 applies to every contract subject to M.G.L. c.30, §39M and to every contract subject to M.G.L. c.149, §§44A through 44H.

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 Awarding 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 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 Awarding Authority shall make an equitable adjustment in the contract price and the contract shall be modified in writing accordingly.

1.6 Timely Decision by Awarding Authority (Statutory reference: M.G.L. c.30, §39P). This Paragraph 1.6 applies to every contract subject to M.G.L. c.30, §39M and to every contract subject to M. G. L. c.149, §§44A through 44H.

In every case in which this contract 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, the decision shall 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.

1.7 Certificate of Appropriation (Statutory reference: M.G.L. c.44, §31C). This Paragraph 1.7 applies to contracts for construction, reconstruction, alteration, remodeling, repair or demolition of any public building or public Work by any city or town costing more than the amount set forth in M.G.L. c.44, §31C.

This contract shall not be deemed to have been made until the auditor or accountant or other official of the city or town having similar duties has certified thereon that an appropriation in the amount of this contract is available therefor. No order to the Contractor for a change in or addition to the Work, whether in the form of a drawing, plan, detail or any other written instruction, unless it is an order which the Contractor is willing to perform without any increase in the contract price, shall be deemed to be given until the auditor or accountant, or other officer of the Awarding Authority having similar duties, has certified thereon that an appropriation in the amount of such order is available therefor, but such certificate shall not be taken as an admission by the Awarding Authority of its liability to pay for such Work. The certificate of the auditor or accountant or other officer of the Awarding Authority having similar duties, that an appropriation in the amount of such order is available shall bar any defense by the Awarding Authority on the ground of insufficient appropriation.

1.8 Method of Payment – Building Projects (Statutory reference: M.G.L. c.30, §39K). This Paragraph 1.8 applies to 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.

1.8.1 Within fifteen days (thirty 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 a periodic payment to the Contractor for the Work performed during the preceding month and for the materials not incorporated in the Work but delivered and suitably stored at the site (or at some location agreed upon in writing) to which the Contractor has title or to which a Subcontractor has title and has authorized the Contractor to transfer title to the Awarding Authority, upon certification by the Contractor that he is the lawful owner and the materials are free from encumbrances, but less (1) a retention based on its estimate of the fair value of its claims against the Contractor and less (2) a retention for direct payments to subcontractors based

on demands for same in accordance with the provisions of Paragraph 1.9 of these Statutory Conditions, and less (3) a retention not exceeding five percent 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 Paragraph 1.9 of these Statutory Conditions, or based on the record of payments by the Contractor to the Subcontractors under this contract if such record of payment indicates that the Contractor has not paid Subcontractors as provided in Paragraph 1.9. 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 after receipt of such periodic estimate from the Contractor, at the place designated by the Awarding Authority if such a place is so designated. The Contractor agrees to pay to each Subcontractor a portion of any such interest paid in accordance with the amount due each Subcontractor.

1.8.2 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 change so made, but such changes or any requirement for a corrected periodic estimate shall not affect the due date for the periodic payment or the date for the commencement of interest charges on the amount of the periodic payment computed in accordance with the changes made, as provided herein; provided, that the Awarding Authority may, within seven days after receipt, return to the Contractor for correction, any periodic estimate which is not in the required form or which contains computations not arithmetically correct and, in that event, the date of receipt of such periodic estimate shall be the date of receipt of the corrected periodic estimate in proper form and with arithmetically correct computations. The date of receipt of a periodic estimate received on a Saturday shall be the first Monday thereafter.

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

1.8.4 A certificate of the architect to the effect that the Contractor has fully or substantially completed the Work shall, subject to the provisions of Paragraph 1.4 of these Supplementary General Conditions, be conclusive for the purposes of this Paragraph 1.8.

1.8.5 Notwithstanding the provisions of this section, at any time after the value of the work remaining to be done is, in the estimation of the Awarding Authority, less than 1 per cent of the adjusted contract price, or the Awarding Authority has determined that the contractor has substantially completed the work and the Awarding Authority has taken possession for occupancy, the Awarding Authority may send to the Contractor by certified mail, return receipt requested, a complete and final list of all incomplete and unsatisfactory work items, including, for each item on the list, a good faith estimate of the fair and reasonable cost of completing such item. The Contractor shall then complete all such work items within 30 days of receipt of such list or before the contract completion date, whichever is later. If the Contractor fails to complete all incomplete and unsatisfactory work items within 45 days after receipt of such items furnished by the Awarding Authority or before the contract completion date, whichever is later, subsequent to an additional 14 days' written notice to the Contractor by certified mail, return receipt requested, the Awarding Authority may terminate the contract and complete the incomplete and unsatisfactory work items and charge the cost of same to the Contractor and such termination shall be without prejudice to any other rights or remedies the Awarding Authority may have under the contract. The Awarding Authority shall note any such termination in the evaluation form to be filed by the Awarding Authority pursuant to the provisions of section 44D of chapter 149.

1.9 Direct Payment (Statutory reference: M.G.L. c.30, §39F). This Paragraph 1.9 applies to every contract awarded pursuant to M.G.L. c.149, §§44A through 44H, and (with the exception of Subparagraph 1.9.9) to every contract awarded pursuant to M.G.L. c.30, §39M.

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

1.9.2 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 Contractor. The 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 Contractor.

1.9.3 Each payment made by the Awarding Authority to the Contractor pursuant to Subparagraphs 1.9.1 and 1.9.2 of this Paragraph 1.9 for the labor performed and the materials furnished by a Subcontractor shall be made to the Contractor for the account of that Subcontractor; and the Awarding Authority shall take reasonable steps to compel the 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 Contractor or which is to be included in a payment to the Contractor for payment to the Subcontractor as provided in subparagraphs 1.9.1 and 1.9.2, the Awarding Authority shall act upon the demand as provided in this Paragraph 1.9.

1.9.4 If, within seventy days after the Subcontractor has substantially completed the subcontract Work, the Subcontractor has not received from the Contractor the balance due under the subcontract including any amount due for extra labor and materials furnished to the Contractor, less any amount retained by the Awarding Authority as the estimated cost of completing the incomplete and unsatisfactory items of Work, the Subcontractor may demand direct payment of that balance from the Awarding Authority. The demand shall be by a sworn statement delivered to or sent by certified mail to the Awarding Authority, and a copy shall be delivered to or sent by certified mail to the 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 Contractor, the Contractor may reply to the demand. The reply shall be 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 Contractor and of the amount due for each claim made by the Contractor against the Subcontractor.

1.9.5 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 Contractor, less any amount (i) retained by the Awarding Authority as the estimated cost of completing the incomplete or unsatisfactory items of work, (ii) specified in any court proceedings barring such payment, or (iii) disputed by the Contractor in the sworn reply; provided that the Awarding Authority shall not deduct from a direct payment any amount as provided in part (iii) if the reply is not sworn to, or for which the sworn reply does not contain the detailed breakdown required by Subparagraph 1.9.4. The Awarding Authority shall make further direct payments to the Subcontractor forthwith after the removal of the basis for deduction from direct payments made as provided in parts (i) and (ii) of this subparagraph.

1.9.6 The Awarding Authority shall forthwith deposit the amounts deducted from a direct payment as provided in part (iii) of Subparagraph 1.9.5 in an interest-bearing joint account in the names of the Contractor and the Subcontractor in bank in Massachusetts selected by the Awarding Authority or agreed upon by the Contractor and the Subcontractor and shall notify the Contractor and the Subcontractor of the date of the deposit and the bank receiving the deposit. The bank shall pay the amount in the account,

including accrued interest, as provided in an agreement between the Contractor and the Subcontractor or as determined by decree of a court of competent jurisdiction.

1.9.7 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 1.9.6 shall be made out of amounts payable to the Contractor at the time of receipt of a demand for direct payment from a Subcontractor and out of amounts which later become payable to the Contractor and in the order of receipt of such demands from subcontractors. All direct payments shall discharge the obligation of the Awarding Authority to the Contractor to the extent of such payment.

1.9.8 The Awarding Authority shall deduct from payments to a Contractor amounts which, together with the deposits in interest-bearing accounts pursuant to subparagraph 1.9.6, are sufficient to satisfy all unpaid balances of demands for direct payment received from Subcontractors. All such amounts shall be earmarked for such direct payments, and the Subcontractors shall have a right in such deductions prior to any claims against such amounts by creditors of the Contractor.

1.9.9. If the Subcontractor does not receive payment as provided in Subparagraph 1.9.1 or if the Contractor does not submit a periodic estimate for the value of the labor or materials performed or furnished by the Subcontractor and the Subcontractor does not receive payment for same when due less the deductions provided for in Subparagraph 1.9.1, the Subcontractor may demand direct payment by following the procedure in subparagraph 1.9.4 and the Contractor may file a sworn reply as provided in that same Subparagraph. A demand made after the first day of the month following that for which the Subcontractor performed or furnished the labor and materials for which the Subcontractor seeks payment shall be valid even if delivered or mailed prior to the time payment was due on a periodic estimate from the Contractor. Thereafter the Awarding Authority shall proceed as provided in Subparagraphs 1.9.5, 1.9.6, 1.9.7 and 1.9.8.

1.9.10 Any assignment by a Subcontractor of the rights under this section to a surety company furnishing a bond under the provisions of M.G.L. c.149, §29 shall be invalid. The assignment and subrogation rights of the surety to amounts included in a demand for direct payment which are in the possession of the Awarding Authority or which are on deposit pursuant to Subparagraph 1.9.6 shall be subordinate to the rights of all Subcontractors who are entitled to be paid under this section and who have not been paid in full.

1.9.11 "Subcontractor" as used in this Paragraph 1.9, (i) for contracts awarded as provided in M.G.L. C.149, §§44A-44H, inclusive, shall mean a person who files a sub-bid and receives a subcontract as a result of that filed sub-bid or who is approved by the Awarding Authority in writing as a person performing labor or both performing labor and furnishing materials pursuant to a contract with the Contractor, (ii) for contracts awarded as provided in M.G.L. c.30, §39M, paragraph (a) shall mean a person approved by the Awarding Authority in writing as a person performing labor or both performing labor and furnishing materials pursuant to a contract with the Contractor, and (iii) for contracts with the Commonwealth not awarded as provided in M.G.L. c.149, §§44A-44H. inclusive, shall also mean a person contracting with the Contractor to supply materials used or

employed in a public works project for a price in excess of five thousand dollars ($5,000.00).

1.9.12 A Contractor or a Subcontractor shall enforce a claim to any portion of the amount of a demand for direct payment deposited as provided in subparagraph 1.9.6 by a petition in equity in the superior court against the other and the bank shall not be a necessary party. A Subcontractor shall enforce a claim for direct payment or a right to require a deposit as provided in subparagraph 1.9.6 by a petition in equity in the superior court against the awarding authority and the Contractor shall not be a necessary party. Upon motion of any party the court shall advance for speedy trial any petition filed as provided in this paragraph. M.G.L. c.231, §§59 and 59B shall apply to such petitions. The court shall enter an interlocutory decree upon which execution shall issue for any part of a claim found due pursuant to §§59 and 59B and, upon motion of any party, shall advance for speedy trial the petition to collect the remainder of the claim. Any party aggrieved by such interlocutory decree shall have the right to appeal therefrom as from a final decree. The court shall not consolidate for trial the petition of any Subcontractor with the petition of one or more Subcontractors or the same general contract unless the court finds that a substantial portion of the evidence of the same events during the course of construction (other than the fact that the claims sought to be consolidated arise under the same general contract) is applicable to the petitions sought to be consolidated and that such consolidation will prevent unnecessary duplication of evidence. A decree in any such proceeding shall not include interest on the disputed amount deposited in excess of the interest earned for the period of any such deposit. No person except a Subcontractor filing a demand for direct payment for which no funds due the Contractor are available for direct payment shall have a right to file a petition in a court of equity against the awarding authority claiming a demand for direct payment is premature, and such Subcontractor must file the petition before the awarding authority has made a direct payment to the Subcontractor and has made a deposit of the disputed portion as provided in part (iii) of Subparagraph 1.9.5 and in Subparagraph 1.9.6.

1.9.13 In any petition to collect any claim for which a Subcontractor has filed a demand for direct payment the court shall, upon motion of the Contractor, reduce by the amount of any deposit of a disputed amount by the awarding authority as provided in part (iii) of Subparagraph 1.9.5 and in Subparagraph 1.9.6 any amount held under a trustee writ or pursuant to a restraining order or injunction.

<u>Payments – Public Works Projects (Statutory Reference: MGL c.30, §39G)</u>.

1.9.14 Upon substantial completion of the work required by a contract with the commonwealth, or any agency or political subdivision thereof, for the construction, reconstruction, alteration, remodeling, repair or improvement of public ways, including bridges and other highway structures, sewers and, water mains, airports and other public works, the contractor shall present in writing to the awarding authority its certification that the work has been substantially completed. Within twenty-one days thereafter, the awarding authority shall present to the contractor either a written declaration that the work has been substantially completed or an itemized list of incomplete or unsatisfactory work items required by the contract sufficient to demonstrate that the work has not been substantially completed. The awarding authority may include with such list a notice setting forth a

reasonable time, which shall not in any event be prior to the contract completion date, within which the contractor must achieve substantial completion of the work. In the event that the awarding authority fails to respond, by presentation of a written declaration or itemized list as aforesaid, to the contractor's certification within the twenty-one day period, the contractor's certification shall take effect as the awarding authority's declaration that the work has been substantially completed.

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

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

1.9.17 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.

1.9.18 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 completed. 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 therefor, whichever occurs first, provided that the awarding authority's inspection shows that no work items required by the contract remain incomplete or unsatisfactory. Interest shall not be paid hereunder on amounts for which interest is required to be paid in connection with the substantial completion estimate as hereinabove provided. The awarding authority shall include the amount of the interest required to be paid hereunder in the final estimate.

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

1.9.20 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.

1.9.21 Substantial completion, for the purposes of this section, shall mean either that the work required by the contract has been completed except for work having a contract price of less than one per cent of the then adjusted total contract price, or substantially all of the work has been completed and opened to public use except for minor incomplete or

unsatisfactory work items that do not materially impair the usefulness of the work required by the contract.

ARTICLE 2 - WAGES AND EMPLOYMENT PRACTICES

2.1 Preference To Veterans and Citizens In Public World Rate of Wages. (Statutory reference: M.G.L. c.149, §26). This Paragraph applies to every contract or subcontract for the construction of public works by the Commonwealth or by a county, town or district, or by persons contracting or subcontracting for such works.

2.1.1 In the employment of mechanics and apprentices, teamsters, chauffeurs and laborers, in the construction of public works by the Commonwealth or by a county, town, authority or district, or by persons contracting or subcontracting such work, 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 M.G.L. c.4, §7, clause 43, 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, authority or district in the construction of public works, or persons contracting or subcontracting for such works, shall give preference to veterans and citizens who are residents of such county, town or district.

2.1.2 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 of Labor and Industries 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 of the town paying the highest rate; provided further, that if, in any of the towns where the works are to be constructed, a wage rate or wage rates have been established in certain trades and occupations by collective agreements or understandings between organized labor and employers, the rate or rates to be paid on said works shall not be less than the rates so established; provided, further, that in towns where no such rate or rates have been so established, the wages paid to mechanics, teamsters, chauffeurs and laborers on public works, shall not be less than the wages paid to the employees in the same trades and occupations by private employers engaged in the construction industry. This section shall also apply to regular employees of the Commonwealth or of a county, town, authority or district, when such employees are employed in the construction, addition to or alteration of public buildings for which special appropriations of more than one thousand dollars 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.

2.2 List of Jobs; Classifications; Determination of Rate of Wages; Schedule. (Statutory reference: M.G.L. c.149, §27). This Paragraph applies to every contract or subcontract for the construction of public works by the Commonwealth, or by a county, town or district.

The Commissioner of Labor and Industries shall prepare, for the use of such public officials or public bodies whose duty it shall be to cause public works to he 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 fill from such site. The Commissioner shall classify said jobs, and he may revise such classifications from time to time, as he may deem advisable. Prior to awarding a contract for the construction of public works, said public official or 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 to the site of said public works or removing 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 Paragraph 2.1 of these Statutory Conditions, 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 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 of 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 health and welfare plans, pension plans and supplementary unemployment benefit plans as provided in the previous section, and such payments 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 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 the Work within classifications as determined by the Commissioner of Labor and Industries, and whoever, for himself, or as representative, agent or officer of another, shall take or receive for his own use or the use of another person, as a refund, rebate 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 or shall be subject to a civil citation or order as provided in M.G.L. c. 149, §27C. The president or treasurer of a corporation and any officers or agents having the management of such corporation shall

also be deemed to be employers of the employees of any corporation within the meanings of M.G.L. c. 149, §27B, inclusive.

When an investigation by the attorney general's office reveals that a Contractor or Subcontractor has violated this section by failing to pay said rates of wages, including payments to health and welfare funds and pensions funds, or the equivalent payment in wages, on said works to any person performing work within classifications as determined by the Commissioner of Labor and Industries, or that a Contractor or Subcontractor has, for himself, or as a representative, agent or officer of another, taken or received for his own use or the use of any other person, as a rebate, refund or gratuity, or in any other guise, any 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, the attorney general may, upon written notice to the Contractor or Subcontractor, and after a hearing thereon, order work halted on the part of the contract on which such wage violations occurred, until the defaulting Contractor or Subcontractor has filed with the attorney general's office a bond in the amount of such penal sum as the attorney general shall determine, conditioned upon payment of said rate or rates of wages, including payments to health and welfare funds and pension funds, or the equivalent in wages, on said works to any person performing work within classifications as determined by the Commissioner of Labor and Industries.

Any employee claiming to be aggrieved by a violation of this section may, at the expiration of ninety days after the filing of a complaint with the attorney general, or sooner if the attorney general assents in writing, and within three years of such violation, institute and prosecute in his own name and on his own behalf, or for himself and for others similarly situated, a civil action for injunctive relief and any damages incurred, including treble damages for any loss of wages and other benefits. Any employee so aggrieved and who prevails in such an action shall be entitled to an award of the costs of the litigation and reasonable attorneys' fees.

2.3 Employment Records To Be Kept By Contractor, Subcontractors; Statement Of Compliance. (Statutory reference: M.G.L. c.149, §27B). This Paragraph applies to every contract or subcontract for the construction of public works by the Commonwealth, or by a county, town or district.

Every contractor, subcontractor or public body engaged in said public works to which Paragraph 2.2 of these Statutory Conditions applies shall keep a true and accurate record of all mechanics and apprentices, teamsters, chauffeurs and laborers employed thereon, showing the name, address and occupational classification of each such employee on said works, and the hours worked by, and the wages paid to, each such employee, and shall furnish to the Commissioner of Labor and Industries, upon his request, a copy of said record, signed by the employer or his authorized agent under the penalties of perjury. Such records shall be open to inspection by any authorized representative of the Department of Labor and Industries at any reasonable time, and as often as may be necessary. Every contractor and subcontractor required to keep such a record shall submit a copy of said record to the Awarding Authority on a weekly basis.

Each such Contractor, Subcontractor or public body shall preserve its payroll records for a period of three years from the date of completion of the contract.

Each such Contractor, Subcontractor or public body shall furnish to the Commissioner of Labor and Industries within fifteen days after completion of its portion of the work a statement, executed by the Contractor, Subcontractor or public body or by any authorized officer or employee of the Contractor, Subcontractor or public body who supervises the payment of wages, in the following form:

_____, 201__

(Date)

STATEMENT OF COMPLIANCE

I, _____
(Name of signatory party) (Title)

do hereby state;

That I pay or supervise the payment of the persons employed by

_____
(Contractor, subcontractor or public body)

on the _____
(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_____

The above mentioned copies of payroll records and statements of compliance shall be available for inspection by any interested party filing a written request to the Contractor for such inspections.

2.4 Wages of Operators of Rented Equipment; Agreements; Penalty. (Statutory reference: M.G.L. c.149, §27F). This Paragraph applies to every contract for the construction of public works by the Commonwealth, or by a county, city, town or district.

No agreement of lease, rental or other arrangement, and no order or requisition under which a truck or any automotive or other vehicle or equipment is to be engaged in public works by the commonwealth or by a county, city, town or district, shall be entered into or given by any public official or public body unless said agreement, order, or requisition contains a stipulation requiring rates of wages, as determined by the commissioner, to be paid to the operator of said trucks, vehicles, or equipment. Any such agreement, order, or requisition which does not contain said stipulation shall be invalid, and no payment shall be made thereunder. Said rates of wages shall be requested of said commissioner by said public official or public body, and shall be furnished by the commissioner in a schedule containing classifications of jobs, and the rate of wages to be paid for each job. Said rates of wages shall include payments to health and welfare plans, or, if no such plan is in effect between employers and employees, the amount of such payments shall be paid directly to said operators.

Whoever shall pay less than said rates of wages, including payments to health and welfare funds, or the equivalent payment in wages, on said works, and whoever accepts for his own use, or for the use of any other person, as a rebate, gratuity, or in any other guise, any part or portion of said wages or health and welfare funds, shall have violated this section and shall be punished or shall be subject to a civil citation or order as provided in M.G.L. c. 149, §27C.

2.5 Reserve Police Officers. (Statutory reference: M.G.L. c.149, §34B). This Paragraph 2.5 applies to 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.

The Contractor shall pay to any reserve police officer employed by him in any city or town the prevailing rate of wages paid to regular police officers in such city or town.

2.6 Eight-Hour Day, etc. (Statutory reference: M.G.L. c.149, §§30, 34). This Paragraph 2.6 applies only to contracts which are subject to the provisions of the aforesaid Sections of the Massachusetts General Laws.

No laborer, worker, mechanic, foreman or inspector working within this Commonwealth in the employ of the Contractor, Subcontractor or other person doing or contracting to do the whole or 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 cases of extraordinary emergency.

2.7 Lodging, etc. (Statutory reference: M.G.L. c.149, §25) This Paragraph applies to every contract for the doing of public Work with the Commonwealth, a county, city, or town, or with a department, board, commission, or officer acting therefor.

Every employee under this contract shall lodge, board and trade where and with whom he elects, and neither the Contractor nor his agents or employees shall, either directly or indirectly, require as a condition of the employment of any person that the employee shall lodge, board or trade at a particular place or with a particular person.

2.8 Access to Contractor's Records. (Executive Order No. 195). This paragraph applies to every contract for the purchase of services or materials by any agency, bureau, board, commission, institution, or department of the Commonwealth.

The Governor or his designee, the secretary of administration and finance, and the state auditor or his designee shall have the right at reasonable times and upon reasonable notice to examine the books, records and other compilations of data of the Contractor which pertain to the performance and requirements of this contract.

2.9 Worker's Compensation Insurance. (Statutory reference: M.G.L. c.149, §34A). This Paragraph 2.9 applies to 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.

The Contractor shall, before commencing performance of the contract, provide by insurance for the payment of compensation and the furnishing of other benefits under M.G.L. c.152 to all persons to be employed under the contract, and the Contractor shall continue such insurance in full force and effect during the term of the contract. Sufficient proof of compliance with this Paragraph 2.9 must be furnished at the time of execution of this contract. Failure to provide and continue in force such insurance as aforesaid shall be deemed a material breach of the contract and shall operate as an immediate termination thereof. No cancellation of such insurance, whether by the insurer or by the insured, shall be valid unless written notice thereof is given by the party proposing cancellation to the other party and to the Awarding Authority at least fifteen days prior to the intended effective date thereof, which date shall be expressed in said notice. Notice of cancellation sent by the party proposing cancellation by registered mail, postage prepaid, with a return receipt of the addressee requested, shall be a sufficient notice. An affidavit of any officer, agent or employee of the insurer or of the insured, as the case may be, duly authorized for the purpose, that he has so sent such notice addressed as aforesaid shall be prima facie evidence of the sending thereof as aforesaid. This section shall apply to the legal representative, trustee in bankruptcy, receiver, assignee, trustee and the successor in interest of any such contractor. The superior court shall have jurisdiction in equity to enforce this section.

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

3.0 OSHA Training. (Statutory reference: MGL c. 30, §39S).

(a) As used in this section the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity. Any person submitting a bid for, or signing a contract to work on, the construction, reconstruction, alteration, remodeling or repair of any public work by the commonwealth, or political subdivision thereof, or by any county, city, town, district, or housing authority, and estimated by the awarding authority to cost more than $10,000, and any person submitting a bid for, or signing a contract to work on, the construction, reconstruction, installation, demolition, maintenance or repair of any building by a public agency, estimated to cost more than $10,000, shall certify on the bid, or contract, under penalties of perjury, as follows:

(1) that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work;

(2) that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and

(3) that all employees to be employed in the work subject to this bid have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration.

(b) Any employee found on a worksite subject to this section without documentation of successful completion of a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration shall be subject to immediate removal.

(c) The attorney general, or his designee, shall have the power to enforce this section including the power to institute and prosecute proceedings in the superior court to restrain the award of contracts and the performance of contracts in all cases where, after investigation of the facts, he has made a finding that the award or performance has resulted in violation, directly or indirectly, of subsection (b), and he shall not be required to pay to the clerk of the court an entry fee in connection with the institution of the proceeding.

ARTICLE 3 - EQUAL EMPLOYMENT OPPORTUNITY AND AFFIRMATIVE ACTION

(Statutory reference: M.G.L. c.151 B; Executive Orders No. 74, No. 116, and No. 246)

3.1 Definitions. 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.

3.2 Non-Discrimination and Affirmative Action Requirements. During the performance of his 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:

3.2.1 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.

3.2.2 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.

3.3. 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.

4.0 Records. The Contractor shall maintain records for the Project in accordance with the requirements of MGL c. 30 § 39R:

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 sections thirty-eight A 1/2 to thirty-eight O, inclusive, of chapter seven and any contract awarded or executed pursuant to section eleven C of chapter twenty-five A, section thirty-nine M of chapter thirty, or sections forty-four A to forty-four H, inclusive, of chapter one hundred and forty-nine, which is for an amount or estimated amount greater than one hundred thousand dollars.

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

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

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

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

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

(7) “Management”, when used herein, means the chief executive officers, partners, principals or other 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-eight A 1/2 to thirty-eight O, inclusive, of chapter seven, or eleven C of chapter twenty-five A, and pursuant to section thirty-nine M of chapter thirty or to section forty-four A through H, inclusive, of chapter one hundred and forty-nine, shall provide that:

(1) The contractor shall make, and keep for at least six 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 commissioner of capital asset management and maintenance shall have the right to examine any books, documents, papers or records of the contractor or of his subcontractors that directly pertain to, and involve transactions relating to, the contractor or his subcontractors, and

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

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

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

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

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

(2) transactions are recorded as necessary

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

ii. to maintain accountability for assets;

(3) access to assets is permitted only in accordance with management's general or specific authorization; and

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

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

(1) whether the representations of management in response to this paragraph and paragraph (b) above are consistent with the result of management's evaluation of the system of internal accounting controls; and

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

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

(e) The office of inspector general, the commissioner of capital asset management and maintenance and any other awarding authority shall enforce the provisions of this section. The commissioner of capital asset management and maintenance may after providing an opportunity for the inspector general and other interested parties to comment, promulgate pursuant to the provisions of chapter thirty A such rules, regulations and guidelines as are necessary to effectuate the purposes of this section. Such rules, regulations and guidelines may be applicable to all awarding authorities. A contractor's failure to satisfy any of the requirements of this section may be grounds for debarment pursuant to section forty-four C of chapter one hundred and forty-nine.

(f) Records and statements required to be made, kept or filed under the provisions of this section shall not be public records as defined in section seven of chapter four and shall not be open to

public inspection; provided, however, that such records and statements shall be made available pursuant to the provisions of clause (2) of paragraph (b).

EXHIBIT C
HUD CONTRACT REQUIREMENTS
SAMPLE OF TERMS

1. OWNER/ CONTRACTOR AGREEMENT.
2. NOTICE TO PROCEED AND PRE-CONSTRUCTION CONFERENCE
3. Funding Source
4. Contract Plans and Specifications
5. Additional Instructions and Detail Drawings
6. Shop or Setting Drawings
7. Materials, Services and Facilities
8. Contractor's Title to Materials
9. Title to Work
10. Inspection and Testing of Materials
11. Express Warranty
12. Maintenance and Guarantee
13. "Or Equal" Clause
14. Survey's Permits and Regulations
15. Contractor's Obligations
16. Weather Conditions
17. Protection of Work and Property - Emergency
18. Inspection
19. Reports, Records and Data
20. Superintendence by Contractor
21. Changes in Work
22. Time for Completion and Liquidated Damages
23. Correction of Work
24. Subsurface Conditions Found Different
25. Right of Owner to Terminate Contract
26. Payments to Contractor
27. Indemnification
28. Acceptance of Final Payment Constitutes Release
29. Insurance
    a. Workers' Compensation Insurance
    b. General Liability
    c. Umbrella Liability
    d. Automobile
    e. Architects and Engineers Professional Liability
30. Damage Insurance
31. Flood Disaster Protection
32. ..... Contract Security
33. Assignments
34. Architect/Engineer's Authority
35. ..... Notice and Service Thereof
36. ..... Subcontract

37. ..... Interest of Member of or Delegate to Congress
38. ..... Other Prohibited Interests
39. ..... Suspension of Work
40. ..... Access to Records
41. ..... Age Discrimination Act of 1975 (for contracts over $2,000)
42. ..... Non-Discrimination
43. ..... Termination of Contract
44. ..... Non Federal Labor-Standards Provisions
45. ..... Schedule of Salaries and Wages
46. ..... Labor Provisions
47. ..... Environmental Requirements
48. ..... Historic Preservation
49. ..... Compliance with Air and Water Acts (for contracts exceeding $100,000)
50. ..... Special Conditions Pertaining to Hazards, Safety Standards and Accident Prevention
51. ..... Compliance with the Massachusetts Community Development Block Grant Program Agreement
52. ..... Interest of Contractor and Employees
53. ..... Severability
54. ..... Availability of Funds
55. ..... Confidentiality

OWNER / CONTRACTOR AGREEMENT

Note: it may be necessary to substitute another term for "architect and/or engineer" to fit the requirements of the specific project.

THIS AGREEMENT made this_____day of _____, 20____, by and between the **TOWN OF SOUTHBRIDGE** hereinafter called the "Owner", and_____, hereinafter called the "Contractor".

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

Article 1. Scope of Work: The Contractor shall perform all the Work required by the Contract Documents for the _____ , prepared by _____ acting as _____, and referred to in these Contract Documents as the "_____".

Article 2. Time of Completion: The Contractor shall commence work under this Contract on the date specified in the written "Notice to Proceed" from the Owner and shall bring the work to Substantial Completion within _____ calendar days of said date. Damages for delays in the performance of the Work shall be in accordance with the Conditions of the Contract.

~~Article 2A Liquidated Damages: Pursuant to the terms in the General Conditions, if the Contractor shall neglect, fail or refuse to complete the Work within the time herein specified, or any proper extension thereof granted by the Owner, then the Contractor does hereby agree, as a partial consideration for the awarding of this Contract, to pay to the Owner the sum of $_____ per day, not as a penalty but as liquidated damages for such breach of contract as hereinafter set forth, for each and every calendar day that the Contractor shall be in default after the time stipulated in the Contract for completing the Work.~~

Article 3. The Contract Sum: The Owner shall pay the Contractor in current funds for the performance of the Work, subject to additions and deductions by Change Order(s) the Contract Sum of _____
_____
$_____.
The Contract Sum is divided as follows:

Item 1: The Work of the Contractor, being all Work other than that covered by Item 2..... $_____

Article 4. Schedule: Before commencing the Work, the Contractor shall submit a project schedule for review and approval by the Owner. The schedule shall show the methods and order of operations that the Contractor proposes to use to complete the Project by the Date for Completion. The approval of the schedule by the Owner shall not be construed as relieving the Contractor from any responsibility.
Article 5. Unanticipated Delay: The provisions of MGL c. 30, §33O apply to this Contract. Should the Contractor be obstructed or delayed in the prosecution of the Work by any act or neglect on the part of the Owner, or as a result of damage which may be caused by lightning, earthquake, rain, or storm, then the time fixed for completion may be extended for a period equivalent to the time lost by

SAMPLE

reason of any of the foregoing causes. No such extension shall be made unless a claim therefor is presented in writing to the Owner within forty-eight hours of the occurrence of such delay. The Contractor shall have no claim against the Owner for damages on account of such delay. The duration of the extension must be certified in writing by the Owner.

Article 6. The Contract Documents: The following, together with this Agreement, form the Contract and all are as fully a part of the Contract as if attached to this Agreement or repeated herein: the Advertisement, Bidding Documents, Contract Forms, Conditions of the Contract, and Specifications as enumerated in the Table of Contents; the Drawings as enumerated in the List of Contract Drawings; Exhibit SP – "The Statutory Provisions for Public Construction Contracts in Massachusetts", Addenda, and Modifications issued after execution of the Contract. Terms used in this Agreement which are defined in the Conditions of the Contract, shall have the meanings designated in those Conditions.

Article 7. Alternates: The following Alternates have been accepted and their costs are included in the Contract Sum stated in Article 3 of this Agreement: Alternate No(s): ( ) and ( ) .

Article 8. Reap Certification: Pursuant to Massachusetts General Laws, Chapter 62C, Section 49A, the undersigned certifies under the penalties of perjury that to the best of his/her knowledge and belief I am in compliance with all laws of the commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support.

Article 9. Payment, Invoices, and Retainage:

a. The provisions of MGL c. 30, §39K apply to this Contract. The Contractor shall submit to the Owner written, periodic invoices on a monthly basis. Every invoice shall indicate the work completed and the percentage of the Work outstanding. The Contractor shall supply any additional information as may reasonably be required by the Owner to clarify, substantiate or otherwise explain the work completed or the amount payable.

b. The Owner shall make periodic payments to the Contractor for the work performed during the preceding periodic estimated period and for the materials not incorporated in the work but delivered and suitably stored at the site, or at some location agreed upon in writing, to which the contractor has title or to which a subcontractor has title. The Owner will retain 5% of the sum payable in approved, periodic payments.

c. The provisions of MGL c. 30, §39F apply to this Contract. The Contractor shall, after receiving payment on account of a periodic estimate, pay each subcontractor (if any) the amount paid for the labor performed and the materials furnished by that subcontractor, less any amount specified in any court proceedings barring such payment and also less any amount claimed due from the subcontractor by the Contractor. If at any time there shall be evidence of any lien or other claim for which, if established, the Owner may become liable, directly or indirectly, and which is chargeable to the Contractor, the Owner may retain out of any payment then due or thereafter to become due an amount sufficient to completely indemnify it against any such claim. If there prove to be any such claim after all the payments are made, the Contractor shall refund to the Owner all moneys that the Owner pays in discharging such claim in consequence of the Contractor's default.

d. The payment of any periodic estimate or of any retained percentage shall in no way constitute an acceptance of the work or in no way prejudice or affect the obligation of the Contractor at its own cost or expense to repair, correct, review, or replace any defects or imperfections in the construction as well as all damages due or attributable to such defects, nor shall any such payment for any current estimate or of any retained percentages

SAMPLE

prejudice or affect the rights of the Owner to hold the Contractor liable for breach of contract or to avail itself of the remedies herein.

e. The Contractor shall, at the time of completion of the Project and with submittal of the last invoice for payment, deliver to the Owner all as-built plans, warranties, manufacturer's warranties, instructions, and owner's manuals concerning the Project (the "Close-out Documents"). The Close-out Documents shall be in the form of two binders to be delivered to the Owner or in digital form approved by the Owner.

18. Article 10. Standard of Performance: The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures, and for coordinating all portions of the Work under the Contract. The Work shall be rendered in conformity with the standards of the trade and shall be professional and of the highest fabrication and installation quality in all respects. Substandard fabrication and installation quality shall be deemed a breach of this Contract.

19. Article 11. Warranty:

(a) The Contractor warrants that the Work under this Contract and the materials furnished by it for use in connection therewith to be free from defects or flaws.

(b) If any part of the Work shall, in the opinion of the Owner, require repair due to defective work or materials furnished by the Contractor, the Owner may notify the Contractor in writing to make the required repairs. If the Contractor shall neglect to start such repairs within ten days of the date of receipt of notice thereof and to complete the same to the satisfaction of the Owner with reasonable dispatch, then the Owner may employ other persons to make such repairs. The Owner shall charge the expense thereof to the Contractor and may use any moneys still retained to pay for the same, and if such sum is insufficient, the Contractor shall be obligated to pay the balance thereof.

20. Article 12. Differing Site Conditions (MGL c. 30, §39N): If, during the progress of the Work, the Contractor or the Owner 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 Owner 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 Owner, as contracting authority, shall make an investigation of such physical conditions, and, if they differ substantially or materially from those shown on the plans or indicated in the contract documents or from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the plans and contract documents and are of such a nature as to cause an increase or decrease in the cost of performance of the work or a change in the construction methods required for the performance of the work which results in an increase or decrease in the cost of the work, the Owner, as contracting authority, shall make an equitable adjustment in the contract price and the Contract shall be modified in writing accordingly

21. Article 13. Payment and Performance Bonds: As set forth in the General Conditions, the Contractor shall obtain and deposit with the Owner a Payment Bond equal to one hundred percent (100%) of the total contract amount on a form prescribed by the Owner.

SAMPLE

22. Article 14. Authority to Authorize Change Orders and Adjustments: The Contractor shall perform all the work required in conformity with the plans and specifications provided by the Owner (MGL c. 30, §39I). This Contract may be amended only by a written Change Order, mutually agreed upon and duly executed by the parties hereto. No modifications, waiver or alternation of the Contract or any term herein shall be enforceable unless it is in writing, as a Change Order, and duly executed by both the Owner and the Contractor. An executed Change Order shall constitute a final settlement of all matters relating to the change in the Work that is the subject of the Change Order.

23. Article 15. Prevailing Wage Laws: This Contract is subject to both the Federal Davis-Bacon Act and the Massachusetts Prevailing Wage Statute, MGL c.149, §27. The Contractor shall pay the higher of the applicable wages as set forth in the schedule of wages included in the Bidding Documents. The requirements of Davis-Bacon and Related Acts are set forth in the document entitled "Federal Labor Standards Provisions (Reproduced from HUD-4010 (2-84)", attached. The provisions of MGL c. 149, §26, regarding preference for veterans and citizens of the Commonwealth, MGL c. 149, §27B regarding record keeping, and MGL c. 149, §27F regarding wages of operators of rented equipment also apply to this Contract.

24. Article 16. Conflict of Interest: The Contractor's attention is called to MGL c.268A. The Contractor shall not act in collusion with any Town officer, agent, employee, or any party regarding this Contract, nor shall the Contractor make gifts regarding this Contract or any other matter in which the Owner has a direct or substantial interest.

25. Article 17. Independent Contractor: The Owner and the Contractor intend that the relationship established between them pursuant to this Contract shall be that of client and independent contractor. No agent, employee, or servant of the Contractor shall be or shall be deemed to be an employee, agent or servant of the Owner. For the limited purposes of M.G.L. c.268A, the Contractor shall be considered a "municipal employee."

26. Article 18. OSHA Compliance (MGL c. 30, §39S): By entering this Contract, the Contractor hereby certifies that (1) that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; (2) that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and (3) that all employees to be employed in the work subject to this bid have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration.

27. Article 19. Notices: All notices under this Contract shall be in writing and shall be deemed received (i) upon delivery in hand, (ii) one business day after being sent by reputable overnight delivery or courier service providing for receipted delivery, or (iii) two business days after being sent by certified or registered mail, return receipt requested, postage prepaid, or (iv) the same business day after being sent by facsimile during business hours of the Southbridge Town Hall; and addressed as follows:

To the Owner:
Town of Southbridge
Attention: _____
41 Elm Street

SAMPLE

Southbridge, MA 01550
(Tel.) (508) 764-5402
E-mail:

To the Contractor:

28. Article 20. Post-Completion: Upon the completion of the Work, the Contractor shall at his own expense remove all equipment, temporary Contractor's buildings and sheds, fencing, rubbish and waste material in and about the Project site and shall leave the premises in a neat and proper condition.

29. Article 21. Counterparts: This Contract may be signed in any number of counterparts, all of which taken together shall constitute one and the same instrument and any Party hereto may execute this Contract by signing one or more counterparts.

30. Article 22. Entire Contract: This Contract constitutes the entire Contract between the parties with respect to the matters addressed herein.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed.

[1] CONTRACTOR

_____
Name of Contractor

_____
Address

By: _____
Signature and Seal

Witness: _____

[1] If a Corporation, attach a notarized copy of the Corporate Vote authorizing signatory to sign Contract.

[2] AWARDING AUTHORITY

_____
Name of Authority

_____
Signature and Seal

_____
Title

Attest: _____

CERTIFICATION OF AVAILABLE FUNDS:
In accordance with the provisions of MGL c. 44, section 31C, I hereby certify that an appropriation of sufficient funds is available for the sum of this contract.

By:
_____
Town Accountant/Town Treasurer

2. Notice To Proceed & Pre-Construction Conference

Notice to Proceed and Pre-Construction Conference

A written Notice to Proceed shall be issued to the Contractor after receipt of the following: proof of required insurance, an EEO poster has been posted in a conspicuous place at the job site, the Contractor has designated an EEO Coordinator, the Federal Wage Decision has been posted in a

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conspicuous place, the Contractor's Certification Concerning Labor Standards and Prevailing Wage Requirements has been submitted to the project manager, and the Subcontractor's Certification Concerning Labor Standards and Prevailing Wage Requirements has been submitted to the awarding authority. No work shall be performed by the Contractor until he has received the Notice to Proceed.

Prior to the start of construction, the Contractor, all subcontractors, the project manager, and the owner shall attend a pre-construction conference. The conference will serve to acquaint the participants with the general plan of contract administration and requirements under which the construction operation is to proceed, and will inform the Contractor, in detail, of the obligations imposed on him and his subcontractors by the Executive Orders concerning Equal Employment Opportunity and Davis-Bacon Act requirements and other Federal labor standards requirements.

The date, time, and place of the conference will be furnished to the Contractor by the project manager.

GENERAL CONDITIONS

3. Funding Source

The project to be constructed and pursuant to this Contract will be financed with assistance from the (Massachusetts Community Development Block Grant Program) and is subject to all applicable Federal, State and local regulations.

4. Contract Plans and Specifications

All plans, specifications and addenda, hereinafter enumerated or referenced in this contract, shall form part of this Contract and the provisions thereof shall be as binding upon the parties hereto as if they were herein set fully forth. The table of contents, titles, headings, running headlines and marginal notes contained herein and in said documents are solely to facilitate reference to various provisions of the Contract Documents and in no way affect, limit or cast light on the interpretation of the provisions to which they refer.

5. Additional Instructions and Detail Drawings

The Contractor will be furnished additional instructions and detail drawings as necessary to carry out the work included in the contract. The additional drawings and instructions thus supplied to the Contractor will coordinate with the Contract Documents and will be so prepared that they can be reasonably interpreted as part thereof. The Contractor shall carry out the work in accordance with the additional detail drawings and instructions. The Contractor and the Architect/Engineer will prepare jointly: (a) a schedule, fixing the dates at which special detail drawings will be required, such drawings, if any, to be furnished by the Architect/Engineer in accordance with said schedule, and (b) a schedule fixing the respective dates for the submission of shop drawings, the beginning of manufacture, testing and installation of materials, supplies and equipment, and the completion of the various parts of the work; each such schedule to be subject to change from time to time in accordance with the progress of the work.

6. Shop or Setting Drawings

The Contractor shall submit promptly to the Architect/Engineer two copies of each shop or setting drawing prepared in accordance with the schedule predetermined as aforesaid. After examination of such drawings by the Architect/Engineer and the return thereof, the Contractor

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shall make such corrections to the drawings as have been indicated and shall furnish the Architect/Engineer with two corrected copies. If requested by the Architect/Engineer, the Contractor must furnish additional copies. Regardless of corrections made in or approval given to such drawings by the Architect/Engineer, the Contractor will nevertheless be responsible for the accuracy of such drawings and for their conformity to the plans and specifications, unless he notifies the Architect/Engineer in writing of any deviations at the time he furnishes such drawings.

7. Materials, Services and Facilities

(a) It is understood that except as otherwise specifically stated in the Contract Documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, superintendence, temporary construction of every nature and all other services and facilities of every nature whatsoever necessary to execute, complete and deliver the work within the specified time.

(b) Any work necessary to be performed after regular working hours, on Sunday or Legal Holidays, shall be performed without additional expense to the Owner.

8. Contractor's Title to Materials

No materials or supplies for the work shall be purchased by the Contractor or by any Subcontractor subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller. The Contractor warrants that he has good title to all materials and supplies used by him in the work, free from all liens, claims or encumbrances.

9. Title to Work

The title to all work completed and in the course of construction and of all material on account of which any payment has been made shall be in the Owner.

10. Inspection and Testing of Materials

(a) All materials and equipment used in the construction of the project shall be subject to adequate inspection and testing in accordance with accepted standards. The laboratory or inspection agency shall be selected by the Owner. The Owner will pay for all laboratory inspection service direct, and not as a part of the Contract.

(b) Materials of construction, particularly those upon which the strength and durability of the structure may depend, shall be subject to inspection and testing to establish conformance with specifications and suitability for uses intended.

11. Express Warranty

The Contractor guarantees to Owner that all materials incorporated into the work will be new unless otherwise specified or agreed. Contractor also guarantees that all work will be done in a workmanlike manner, free from defects, and in conformance with any specifications mentioned in this contract.

12. Maintenance and Guarantee

The Contractor hereby guarantees that the entire work constructed by him under the contract will meet fully all requirements thereof as to quality of workmanship and of materials furnished by him. The Contractor hereby agrees to make at his/her own expense any repairs or

SAMPLE

replacements made necessary by defects in materials or workmanship supplied to him that become evident within one (1) year after the date of the final payment, and to restore to full compliance with the requirements set forth herein for any part of the work constructed hereunder, which during said one (1) year period is found to be deficient with the respect to any provisions of the specifications. The Contractor also agrees to hold the Owner harmless from claims of any kind arising from damage due to said defects. The Contractor shall make all repairs and replacements promptly upon receipt of written orders for same from the Owner. If the Contractor fails to make the repairs and replacements promptly, the Owner may do the work and the Contractor shall be liable to the owner for the cost thereof.

13. "Or Equal" Clause

Whenever a material, article or piece of equipment is identified on the plans or in the specifications by reference to manufacturers' or vendors' names, trade names, catalogue numbers, etc., it is intended merely to establish a standard; and, any materials, article or equipment of other manufacturers and vendors which will perform adequately the duties imposed by the general design will be considered equally acceptable provided the material, article or equipment so proposed is, in the opinion of the Architect/Engineer, of equal substance and function. It shall not be purchased or installed by the Contractor without the Architect/Engineer's written approval.

14. Survey's Permits and Regulations

Unless otherwise expressly provided for in the specifications, the Owner will furnish to the Contractor all surveys necessary for the execution of the work.

The Contractor shall procure and pay for all permits, licenses and approvals necessary for the execution of his contract, and shall comply with the provisions of 24 CFR 85.36(h)(1)-(3) and Massachusetts General Laws with respect to bonding or other insurance requirements.

The Contractor shall comply with all laws, ordinances, rules, orders and regulations relating to performance of the work, the protection of adjacent property and the maintenance of passageways, guard fences or other protective facilities.

15. Contractor's Obligations

The Contractor shall and will, in good workmanlike manner, do and perform all work and furnish all supplies and materials, machinery, equipment, facilities and means, except as herein otherwise expressly specified, necessary or proper to perform and complete all the work required by this Contract, within the time herein specified, in accordance with the provisions of this Contract and said specifications and in accordance with the plans and drawings covered by this Contract any and all Supplemental plans and drawings, and in accordance with the directions of the Architect/Engineer as given from time to time during the progress of the work. He shall furnish, erect, maintain and remove such construction plant and such temporary works as may be required.

The contractor shall observe, comply with, and be subject to all terms, conditions, requirements and limitations of the Contract and specifications, and shall do, carry on and complete the entire work to the satisfaction of the Architect/Engineer and the Owner.

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16. Weather Conditions

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

17. Protection of Work and Property - Emergency

The Contractor shall at all times safely guard the Owner's property from injury or loss in connection with this Contract. He shall at all times safely guard and protect his own work, and that of adjacent property from damage. The Contractor shall replace or make good any such damage, loss or injury unless such is caused directly by errors contained in the Contract or by the Owner, or his duly authorized representatives.

In case of an emergency which threatens loss or injury of property, and/or safety of life, the Contractor will be allowed to act, without previous instructions from the Architect/Engineer, in a diligent manner. He shall notify the Architect/Engineer immediately thereafter. Any claim for compensation by the Contractor due to such extra work shall be promptly submitted to the Architect/Engineer for approval.

Where the Contractor has not taken action but has notified the Architect/Engineer of an emergency threatening injury to persons or damage to the work or any adjoining property, he shall act as instructed or authorized by the Architect/Engineer.

The amount of reimbursement claimed by the Contractor on account of any emergency action shall be determined in the manner provided in Paragraph 21 below.

18. Inspection

The authorized representatives and agents of the Owner, the Executive Office of Communities and Development, the Commonwealth, the grantee, and the Department of Housing and Urban Development shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials and other relevant data and records.

19. Reports, Records and Data

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

performed or to be performed under this Contract. All records must be retained by the Contractor for a period of seven years from completion of the work.

20. Superintendence by Contractor

At the site of the work, the Contractor shall employ a construction superintendent or foreman who shall have full authority to act for the Contractor. It is understood that such representative shall be acceptable to the Architect/Engineer and shall be one who can be continued in that capacity for the particular job involved unless he ceases to be on the Contractor's payroll.

21. Changes in Work

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No changes in the work covered by the approved Contract Documents shall be made without having prior written approval of the Owner. Charges or credits for the work covered by the approved change shall be determined by one or more, or a combination of the following methods:

(a) Unit bid prices previously approved.
(b) An agreed lump sum.
(c) The actual cost of:

(1) Labor, including foremen.
(2) Materials entering permanently into the work.
(3) The ownership or rental cost of construction plant and equipment during the time of use on the extra work.
(4) Power and consumable supplies for the operation of power equipment.
(5) Insurance.
(6) Wages to be paid.

To the cost under (c) there shall be added a fixed fee to be agreed upon but not to exceed fifteen percent (15%) of the actual cost of work. The fee shall be compensation to cover the cost of supervision, overhead, bond, profit and any other general expenses.

22. Time for Completion and Liquidated Damages

It is hereby understood and mutually agreed, by and between the Contractor and the Owner, that the date of beginning and the time for completion of the work to be done hereunder are ESSENTIAL CONDITIONS of this Contract; and it is further mutually understood and agreed that the work embraced in this Contract shall be commenced on a date to be specified in the "Notice to Proceed."

The Contractor agrees that said work shall be prosecuted regularly, diligently and uninterruptedly at such rate of progress as will ensure full completion thereof within the time specified. It is expressly understood and agreed, by and between the Contractor and the Owner, that the time for the completion of the work described herein is a reasonable time for the completion of the same, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality.

If the said Contractor shall neglect, fail or refuse to complete the work within the time herein specified, or any proper extension thereof granted by the Owner, then the Contractor does hereby agree, as a partial consideration for the awarding of this Contract, to pay to the Owner the amount specified in the Contract, not as a penalty but as liquidated damages for such breach of contract as hereinafter set forth, for each and every calendar day that the Contractor shall be in default after the time stipulated in the Contract for completing the work.

The said amount of liquidated damages is fixed and agreed upon by and between the Contractor and the Owner because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the Owner would sustain in such event and said amount shall be retained from time to time by the Owner from current periodic estimates.

It is further agreed that time is of the essence of each and every portion of this Contract and of the specifications wherein a definite and certain length of time is fixed for the performance of

SAMPLE

any act whatsoever; and where under the Contract an additional time is allowed for the completion of any work, the new time limit fixed by such extension shall be of the essence of this contract. Provided, that the Contractor shall not be charged with liquidated damages or any excess cost when the owner determines that the Contractor is without fault and the Contractor's reasons for the time extension are acceptable to the Owner; provided, further, that the Contractor shall not be charged with liquidated damages or any excess cost when the delay in completion of the work is due:

(a) To any preference, priority or allocation order duly issued by the Government.

(b) To unforeseeable cause beyond the control and without the fault of negligence of the Contractor, including, but not restricted to, acts of God, or of the public enemy, acts of the Owner, acts of another Contractor in the performance of a contract with the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes and severe weather.

(c) To any delays of Subcontractors or suppliers occasioned by any of the causes specified in subsections (a) and (b) of this article.

Provided further, that the Contractor shall within ten (10) days from the beginning of such delay, unless the Owner shall grant a further period of time prior to the date of final settlement of the Contract, notify the Owner, in writing, of the causes of the delay, who shall ascertain the facts and extent of the delay and notify the Contractor within a reasonable time of its decision in the matter.

23. Correction of Work

All work, all materials, whether incorporated in the work or not, all processes of manufacture, and all methods of construction shall be at all times and places subject to the inspection of the Architect/Engineer who shall be the final judge of the quality and suitability of the work, materials, processes of manufacture and methods of construction for the purposes for which they are used. Should they fail to meet his approval they shall be forthwith reconstructed, made good, replaced and/or corrected, as the case may be, by the Contractor at his own expense. Rejected materials shall immediately be removed from the site. If, in the opinion of the Architect/Engineer, it is undesirable to replace any defective or damaged materials or to reconstruct or correct any portion of the work injured or not performed in accordance with the Contract Documents, the compensation to be paid to the Contractor hereunder shall be reduced by such amount as in the judgment of the Architect/Engineer shall be equitable.

24. Subsurface Conditions Found Different

Should the Contractor encounter subsurface and/or latent conditions at the site materially differing from those shown on the plans or indicated in the specifications, he shall immediately give notice to the Architect/Engineer of such conditions before they are disturbed. The Architect/Engineer will thereupon promptly investigate the conditions, and if he finds that they materially differ from those shown on the plans or indicated in the specifications, he will at once make such changes in the plans and/or specifications as he may find necessary, any increase or decrease of cost resulting from such changes to be adjusted in the manner provided in Paragraph 21 of the General Conditions.

25. Right of Owner to Terminate Contract

SAMPLE

The Owner may terminate this Contract by providing the Contractor and the Surety with 10 days written notice specifying the reasons for termination as outlined below:

(a) Violation of any of the provisions of this Contract by the Contractor or any of his/her subcontractors.

(b) A determination by the Owner that the Contractor has engaged in fraud, waste, mismanagement, misuse of funds, or criminal activity with any funds provided by this Contract.

(c) Failure of the Contractor, for any reason, to fulfill in a timely and proper manner its obligations under this Contract including compliance with applicable federal, state or local laws or regulations, and such procedures or guidelines as may be established for the Massachusetts Community Development Block Grant by EOCD;

(d) Cancellation, revocation, suspension or termination by HUD of the grant agreements to the Commonwealth under which the Owner's Community Development Block Grant Agreement is made, or the portion thereof funding this contract.

In the event of any such termination, the Surety shall have the right to take over and perform the Contract; provided, however, that if the Surety does not commence performance within ten (10) days from the date of the mailing to such Surety of notice of termination, the Owner may take over the work and prosecute the same to completion at the expense of the Contractor and the Contractor and his Surety shall be liable to the Owner for any excess cost occasioned by the Owner thereby, and in such event the Owner may take possession of and utilize in completing the work, such materials, appliances and plant as may be on the site of the work and necessary therefore.

If the Owner determines that a continuation of work on the project would endanger the life, health, or safety of those working or living at or near the project site, or that immediate action is necessary to protect public funds and/or property, the Owner may suspend work or terminate this agreement by providing notice to the Contractor in the form of telegram, mailgram, hand-carried letter, or other appropriate written means.

26. Payments to Contractor

(a) Not later than the fifteenth day of each calendar month the Owner shall make a progress payment to the Contractor on the basis of a duly certified and approved estimate of the work performed during the preceding calendar month under this Contract, but to insure the proper performance of this Contract, the Owner shall retain five percent (5%) of the amount of each estimate until final completion and acceptance of all work covered by this Contract; provided, that the Contractor shall submit his estimate not later than the first day of the month; provided, further, that on completion and acceptance of each separate building, public work or other division of the Contract, on which the price is stated separately in the Contract, payment may be made in full, including retained percentages thereon, less authorized deductions.

(b) In preparing estimates the material delivered on the site and preparatory work done may be taken into consideration.

27. Indemnification

SAMPLE

The Contractor shall comply with the requirements of all applicable laws, rules and regulations in connection with the services of the Contractor, and shall exonerate, indemnify and hold harmless the Owner's officers, agents, and all employees from and against them, and local taxes or contributions imposed or required under the Social Security, Worker's Compensation, and Income Tax laws. Further, the Contractor shall exonerate, indemnify and hold harmless the Owner with respect to any damages, expenses or claims arising from or in connection with any of the work performed or to be performed under this Contract. This shall not be construed as a limitation of the Contractor's liability under the Contract or as otherwise provided by law.

28. Acceptance of Final Payment Constitutes Release

The acceptance by the Contractor of final payment shall be and shall operate as a release to the Owner of all claims and all liability to the Contractor. No payment, however, final or otherwise, shall operate to release the Contractor or his Sureties from any obligations under this Contract or the performance and payment bond.

29. Insurance

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

(a) *Workers' Compensation Insurance:*
The Contractor shall procure and shall maintain during the life of this Contract Workmen's Compensation Insurance as required by applicable State or local law for all of his employees and, in case of any such work sublet, the Contractor shall require the Subcontractor similarly to provide Workmen's Compensation Insurance for all of the latter's employees unless such employees are covered by the protection afforded by the Contractor's Workmen's Compensation Insurance. . (CANNOT BE LESS THAN $100,000 OF INSURANCE). MGL C.152 sec.25C Insurance for workers compensationAll contracts for public work must meet the insurance requirements of this chapter.

(b) *General Liability*
At least $1,000,000 Bodily Injury and Property Damage Liability, Combined Single Limit with $3,000,000 Annual Aggregate Limit. The Town will be named as an "Additional Insured". Products and Completed Operations should be maintained for up to 3 years after the completion of the project.

(c) *Umbrella Liability* At least $2,000,000 per occurrence and $2,000,000 aggregate

(d) *Automobile Liability* Applicable for any contractor who has an automobile operating exposure for at least $1,000,000 Bodily Injury and Property Damage per accident. The Town should be named as an "Additional Insured".

(e) *Architects and Engineers Professional Liability* Applicable for any architects or engineers involved in the project (CANNOT BE LESS THAN $1,000,000/ occurrence, $3,000,000/ aggregate).

(f) *Proof of Insurance* The Contractor shall furnish the Owner with certificates showing the type, amount, class of operations covered, effective dates and date of expiration of policies. Such certificates shall also contain substantially the following statement: "The insurance covered by this certificate will not be canceled or materially altered, except after ten (10) days written notice has been received by the Owner."

30. Flood Disaster Protection

SAMPLE

The owner of land subject to acquisition or improvement under this contract, and its successors or assigns, are hereby obligated to obtain and maintain, during ownership of the land which is the subject of this contract, such flood insurance as is required with respect to financial assistance for acquisition or construction purposes under section 102 (a) of the Flood Disaster protection Act of 1973. This obligation is binding notwithstanding the fact that construction on the land which is the subject of this contract is not itself funded out of assistance provided under the Housing and Community Development Act of 1974, as amended.

31. Contract Security

The Contractor shall furnish a performance bond in an amount at least equal to one hundred percent (100%) of the contract prices as security for the faithful performance of this Contract and also a payment bond in an amount not less than one hundred percent (100%) of the contract price or in a penal sum not less than that prescribed by State or local law, as security for the payment of all persons performing labor on the project under this Contract and furnishing materials in connection with this Contract.

32. Assignments

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

33. Architect/Engineer's Authority

The Architect/Engineer shall give all orders and directions contemplated under this Contract and specifications relative to the execution of the work. The Architect/Engineer shall determine the amount, quality, acceptability and fitness of the several kinds of work and materials which are to be paid for under this Contract and shall decide all questions which may arise in relation to said work and the construction thereof. The Architect/Engineer's estimates and decisions shall be final and conclusive, except as herein otherwise expressly provided. In case any question shall arise between the parties hereto relative to said Contract and specifications, the determination or decision of the Architect/Engineer shall be a condition precedent to the right of the Contractor to receive any money or payment for work under this Contract affected in any manner or to any extent by such question.

The Architect/Engineer shall decide the meaning and intent of any portion of the specifications and of any plans or drawings where the same may be found obscure or be in dispute.

34. Notice and Service Thereof

Any notice to any Contractor from the Owner relative to any part of this Contract shall be in writing and considered delivered and the service thereof completed, when said notice is posted, by certified or registered mail, to the said Contractor at his last given address, or delivered in person to the said Contractor or his authorized representative on the work.

35. Subcontract

SAMPLE

The Contractor will insert in any subcontracts the Federal Labor Standards Provisions contained herein and such other clauses as the Department of Housing and Urban Development may, by instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts which they may enter into, together with a clause requiring this insertion in any further subcontracts that may in turn be made.

36. Interest of Member of or Delegate to Congress

No member of or delegate to Congress, or Resident Commissioner, shall be admitted to any share or part of this Contract or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this Contract if made with a corporation for its general benefit.

37. Other Prohibited Interests

No official of the City/Town who is authorized in such capacity and on behalf of the City/Town to negotiate, make, accept or approve, or to take part in negotiating, making, accepting or approving any architectural, engineering, inspection, construction or material supply contract or any subcontract in connection with the construction of the project, shall become directly or indirectly interested personally in this Contract or in any part hereof. No officer, employee, architect, attorney, engineer or inspector of or for the City/Town who is authorized in such capacity and on behalf of the City/Town to exercise any legislative, executive, supervisory or other similar functions in connection with the construction of the project, shall become directly or indirectly interested personally in this Contract or in any part thereof, any material supply contract, subcontract, insurance contract or any other contract pertaining to the project.

38. Suspension of Work

Should the Owner be prevented or enjoined from proceeding with work either before or after the start of construction by reason of any litigation or other reason beyond the control of the Owner, the Contractor shall not be entitled to make or assert claim for damage by reason of said delay; but time for completion of the work will be extended to such reasonable time as the Owner may determine will compensate for time lost by such delay with such determination to be set forth in writing.

39. Access to Records

The Contractor shall maintain accounts and records, including personnel, property and financial records, adequate to identify and account for all costs pertaining to the Contract and such other records as may be deemed necessary by the Municipality to assure proper accounting for all project funds, both CDBG and non-CDBG shares. These records will be made available for audit purposes to the Owner or any authorized representative, and will be retained for seven years after final Mass. CDBG audit.

40. Age Discrimination Act of 1975 (for contracts over $2,000)

No person in the United States shall, on the basis of age, be excluded from participation in, be denied the benefits of, or be subjected to discrimination from receiving Federal financial assistance.

The Contractor shall comply with the provisions of the Age Discrimination Act of 1975 (42 U.S.C. 6101 et seq.). The Age Discrimination in Employment Act prohibits arbitrary age discrimination in employment.

SAMPLE

41. Non-Discrimination

The Contractor shall adhere to the requirements set forth in Title VI of the Civil Rights Act of 1964 (Public Law 88-352), and the regulations issued pursuant thereto by HUD (24 CFR Part 1); Title VIII of the Civil Rights Act of 1968 (Public Law 90-284), as amended; Section 109 of the Housing and Community Development Act of 1974, and the HUD regulations issued pursuant thereto (24 CFR 570.601); Federal Executive Order 11063, as amended by Executive Order 12259 and the HUD regulations issued pursuant thereto (24 CFR 107); Executive Order 11246 and the rules, regulations and relevant orders of the U.S. Secretary of Labor, if applicable; The Age Discrimination Act of 1975 (42 U.S.C. 6101 et seq.); Section 402 of the Veterans of the Vietnam Era Act (for projects of $10,000 or more). Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794); Massachusetts General Laws Chapter 151B, section 1 et seq.; State Executive Order 74 as amended and revised by Executive Orders

116, 143 and 227, and MASS. CDBG regulations, procedures or guidelines; Title II of the Uniform Relocation Assistance and Real Property, Acquisition Policies Act of 1979; and MASS. CDBG guidelines, procedures, or regulations.

The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, age, handicap, or national origin. The Contractor shall take affirmative action to ensure that applicants for employment are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, age, handicap, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor shall post in conspicuous places, available to employees and applicants for employment, notices setting forth the provision of this non-discrimination clause. The Contractor shall state in all solicitations or advertisements for employees placed by or on behalf of the Contractor, that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age, handicap, or national origin. The Contractor shall incorporate the foregoing requirements of this paragraph in all contracts for work to be performed in this paragraph in all contracts for work to be performed in accordance with this Contract and will require all of its subcontractors to incorporate such requirements in all subcontracts for program work.

Contract subject to Federal Executive Order 11246, as amended, shall be subject to HUD Equal Employment Opportunity regulation at 24 CFR Part 130 applicable to HUD assisted construction contracts.

The Contractor shall send to each labor union or representative or workers with which they have a collective bargaining agreement or other contract or understanding, a notice advertising the said labor union or worker's representatives of the Contractor's commitment under this subsection and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

In the event of noncompliance by the Contractor with the nondiscrimination clauses of this Agreement or with any such rules, regulations, or orders of the Secretary of Labor, the Contract may be canceled, terminated or suspended in whole or in part, and the Contractor may be declared ineligible for further Government contract or federally assisted construction contract

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procedures authorized in Executive Order 11246, or by rules, regulations, or orders of the Secretary of Labor, as otherwise provided by law.

The Contractor shall include the provisions set forth herein in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such actions with respect to any subcontract or purchase order as HUD or MASS. CDBG may direct as a means of enforcing such provisions, including sanctions for noncompliance: provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the contractor may request the United States to enter into such litigation to protect the interest of the United States.

42. Termination of Contract

The Owner may suspend or terminate this Contract by providing the recipient with ten (10) days written notice for reasons outlined as follows:

1. Failure of the Grantee, for any reason, to fulfill in a timely and proper manner its obligations under this Contract including compliance with applicable federal, state or local laws or regulations, and such procedures or guidelines as may be established for the Massachusetts Community Development Block Grant;

2. Cancellation, revision, suspension or termination by HUD of the grant agreements to the Commonwealth under which the Owner's Community Development Block Grant Agreement is made, or the portion thereof funding this contract.

43. Non Federal Labor-Standards Provisions

The following Massachusetts Labor-Standards Provisions, including the provisions concerning maximum hours of work, minimum rates of pay, and overtime compensation, with respect to the categories and classifications of employees hereinafter mentioned are included in this Contract pursuant to the requirements of applicable State or local laws. The inclusion of such provisions shall not be construed to relieve the Contractor or any Subcontractor from the pertinent requirements of any corresponding Federal Labor-Standards Provisions of this Contract. If the minimum rates of pay set forth below are higher than the minimum rates of pay required by or set forth in the Federal Labor Standards Provisions of this Contract for corresponding classifications, the minimum rates of pay set forth below shall, for the purposes of this Contract, be the applicable minimum rates of pay for such classifications. The limitations, if any, in these Massachusetts Labor-Standards Provisions upon the hours per day, per week or per month which employees engaged on the work covered by this Contract may be required or permitted to work thereon shall not be exceeded.

44. Schedule of Salaries and Wages

The minimum wage rates and health and welfare fund contributions applicable to this Contract as determined by the Commissioner, Department of Labor and Industries, Commonwealth of Massachusetts under the provisions of the Massachusetts General Laws, Chapter 149, Sections 26 - 27D. The greater of Federal or State prevailing wages, when both are applicable, shall be paid under this contract and reported as required.

45. Labor Provisions

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(a) In the employment of mechanics and apprentices, teamsters, chauffeurs and laborers by the Contractor and Subcontractors, preference shall first be given to citizens of the Commonwealth who have been residents of the Commonwealth for at least six months at the commencement of their employment, who are male veterans as defined in clause forty-third of M.G.L. c. 4, s. 7 and who are qualified to perform the work to which the employment relates; and secondly, to citizens of the Commonwealth generally who have been residents of the Commonwealth for at least six months at the commencement of their employment, and if they cannot be obtained in sufficient numbers, then to citizens of the United States, in accordance with M.G.L. c. 149, s. 26.

(b) The minimum rates of wages to be paid mechanics and apprentices, chauffeurs, teamsters and laborers shall be set forth in the schedule of rates of wages determined by the Commissioner of Labor and Industry unless the Federal rates are higher.

(c) In accordance with M.G.L. c. 149, s 34A, the Contractor shall, before commencing performance of the contract, provide by insurance for the payment of compensation and the furnishing of other benefits under M. G. L. c. 152 to all persons to be employed under the contract, and the Contractor shall continue such insurance in full force and effect during the terms of the contract. Sufficient proof of compliance with this section must be furnished at the time of execution of this contract. Failure to provide and continue in force such insurance as aforesaid shall be deemed a material breach of the contract and shall operate as an immediate termination thereof. The attention of the Contractor is directed to that portion of G.L. c. 149, s. 34A which provides that whoever violates any of its provisions shall be punished by a fine of not more than one hundred dollars or by imprisonment for six months, or both; and, in addition, any Contractor who violates any provision of this section shall be prohibited from contracting, directly or indirectly, with the Commonwealth or any political subdivision thereof for the construction, alteration, demolition, maintenance or repair of, or addition to, any public works or public building for a period of two years from the date of conviction of said violation.

(d) The Contractor shall pay to any reserve police officer employed by him the prevailing rate of wage paid to regular police officers, as required by M.G.L. c. 149, s. 34B.

46. Environmental Requirements

The Contractor shall comply, where applicable, with: federal Executive Order 11988, Floodplain Management, May 24, 1977 (42 FR 26951 et. seq.) particularly section 2 (a); the Coastal Zone Management Act of 1972 (16 U.S.C. 1451 et. seq.), as amended, particularly section 307 (c) and (d) (16 U.S.C. 1456 (c) and (d); the Safe Water Drinking Act of 1974 (42 U.S.C. 201, 300 (f) et seq., and 21 U.S.C. 349), as amended; the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) as amended, particularly section 7 (16 U.S.C. 1536; the Wild and Scenic Rivers Act of 1968 (16 U.S.C. 1271 et seq.) as amended, particularly section 7 (b) and (c) (16 U.S.C. 1278 (b) and (c); the Clean Air Act (42 U.S.C. 7401 et seq.), as amended, particularly section 176 (c) and (d) (42 U.S.C. 7506 (c) and (d)); HUD Environmental Criteria and Standards (44 FR 40860-40866, July 12, 1979); "The American Standard Specification for Making Buildings and Facilities Accessible to and Usable by the Physically Handicapped," Number A-117.4-R 1971, subject to the exceptions contained in 41 CFR 101-19-604; and any corresponding provisions of State and local laws and regulations. The Contractor shall also comply, where applicable, with the National Environmental Policy Act of 1969, Solid Waste Disposal

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Act, as amended by the Resource Conservation and Recovery Act, Flood Disaster Protection Act of 1973, National Flood Insurance Act of 1968, and Protection of Wetlands Laws.

47. Historic Preservation

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

48. Compliance with Air and Water Acts (for contracts exceeding $100,000)

In addition to the foregoing requirements, all nonexempt Contractors and Subcontractors shall furnish to the Owner, the following:

A. A stipulation by the Contractor or Subcontractors, that any facility to be utilized in the performance of any nonexempt contract or subcontract, is not listed on the List of Violating Facilities issued by the Environmental Protection Agency (EPA) pursuant to 40 CFR 15.20.

B. Agreement by the Contractor to comply with all the requirements of Section 114 of the Clean Air Act, as amended, (42 USC 1857c-8) and Section 308 of the Federal Water Pollution Control Act, as amended, (33 USC 1318) relating to inspection, monitoring, entry, reports and information, as well as all other requirements specified in said Section 114 and Section 308, and all regulations and guidelines issued thereunder.

C. A stipulation that as a condition for the award of the Contract, prompt notice will be given of any notification received from the Director, Office of Federal Activities, EPA, indicating that a facility utilized, or to be utilized for the Contract, is under consideration to be listed on the EPA List of Violating Facilities.

D. Agreement by the Contractor that he will include, or cause to be included, the criteria and requirements in paragraphs A through D of this section in every nonexempt subcontract and requiring that the Contractor will take such actions as the Government may direct as a means of enforcing such provisions.

49. Special Conditions Pertaining to Hazards, Safety Standards and Accident Prevention

A. Lead-Based Paint Hazards (applicable to contracts for construction or rehabilitation of residential structures)

The construction or rehabilitation of residential structures is subject to the HUD-Lead-Based Paint regulations, 24 CFR Part 35. The Contractor and Subcontractors shall comply with the provisions for the elimination of lead-based paint hazards under sup-part B of said regulations. The Owner will be responsible for the inspections and

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certifications required under Section 35.14(f) thereof, and requirements of M.G.L. Ch.111, Sec. 190-191, and the
regulations for Lead Poisoning.

50. Compliance with the Massachusetts Community Development Block Grant Program Contract

Unless modified or changed by any special terms or conditions set forth in the Grant Contracts, all activities authorized by this Contract shall be subject to and performed in accordance with Appendix A and all other provisions of said Grant Contract, and all applicable federal, state, and local laws and regulations, including but not limited to those cited within the said Agreement, and any applicable regulations issued by HUD published in 24 CFR Part 570, as may be amended from time to time, and any procedures and guidelines as may be established by MASS. CDBG for the Massachusetts Community Development Block Grant Program.

51. Interest of Contractor and Employees

The Contractor covenants that he presently has no interest and shall not acquire interest, direct or indirect, in the study area or any parcels therein or any other interest which would conflict in any manner or degree with the performance of his services hereunder. the Contractor further covenants that in the performance of this contract, no person having any such interest shall be employed. Further, the Contractor shall adhere to the provisions of the Hatch Act (5 U.S.C. 1501 et seq.) which limits political activities by employees whose principal employment is in connection with an activity which is financed in whole or in part by federal funds.

52. Severability

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

53. Availability of Funds

The compensation provided by this agreement is subject to the continued availability of federal funds for the Massachusetts Small Cities Program/MASS. CDBG, and to the continued eligibility of the Commonwealth and the Owner to receive such funds.

54. Confidentiality

The Contractor will protect the privacy of, and respect the confidentiality of information provided by, program participants, consistent with applicable federal and state regulations, including M.G.L. C.66, section 10, regarding access to public records.

SAMPLE

FORM OF PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS:

That we, _____ as Principal,

and _____ as surety, are held and

firmly bound unto the Lowell Housing Authority, as Obligee, in the sum of

_____

_____

($_____),

to be paid to the Obligee, for which payments, well and truly to be made, we bind ourselves, our respective heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

Whereas, the said Principal has made a Contract with the Obligee, bearing the date of ,2003 for the construction of the Project.

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

In the event that the Contract is abandoned by the Principal, or in the event that the Obligee, under the provisions of Article 14 of the Supplementary Conditions of said Contract ends the employment of the Principal or the authority of the Principal to continue the work, said Surety hereby further agrees that it shall, if requested in writing by the Obligee, take action as is necessary to complete said Contract.

In witness whereof, the Principal and Surety have set their hands and seals this

_____ day of _____,20__,

SAMPLE

PRINCIPAL	**SURETY**
_____	_____
_____	_____
(Name & Seal)	**(Attorney-in-Fact) (Seal)**
_____	
(Title)	
Attest:_____	Attest: _____

The rate for this bond is _____ % for the first $ _____
and _____ % for the next $.___.
The total premium for this bond is $ _____.

SAMPLE

FORM OF PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS:

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

WHEREAS, the said Principal has made a contract with the Obligee, bearing the date of _____, 200__, for the construction of __Project Title__ in _____City/Town _____, Massachusetts.

Now the conditions of this obligation are such that if the Principal and all Sub-contractors under said contract shall pay for all labor performed or furnished and for all materials used or employed in said contract and in any and all duly authorized modifications, alterations, extensions of time, changes, or additions to said contract that may hereafter be made, notice to the surety of such modifications, alterations, extensions of time, changes, or additions being hereby waived the foregoing to include any other purposes or items set out in, and to be subject to, provisions of Massachusetts General Laws, Chapter 30, Section 39A, and Chapter 149, Section 29, as amended and Federal Regulation 24 CFR 85.36(h), then this obligation shall become null and void: otherwise it shall remain in full force and virtue.

IN WITNESS WHEREOF, the Principal and Surety have hereunto set their hands and seals this _____ day of _____, 19____.

PRINCIPAL	SURETY
_____	_____
_____	_____
_____	_____
(Title)	(Attorney-in-fact)
Seal:	Seal:
Attest:	Attest:
_____	_____

SAMPLE

Certification of Bidder Regarding Equal Employment Opportunity

CERTIFICATION OF BIDDER REGARDING EQUAL EMPLOYMENT OPPORTUNITY (EEO)
Instructions
This certification is required pursuant to Executive Order 11246 (30 CFR 12319-25). The implementing rules and regulations provide that any bidder or prospective contractor, or any of their proposed sub contractors, shall state as an initial part of the bid or negotiations of the contract whether it has participated in any previous contract or sub contract subject to the equal opportunity clause, 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 calendar days after bid opening. No contract shall be awarded unless such report is submitted.
Certification by Bidder
Name and Address of Bidder (include zip code)
1. Bidder has participated in a previous contract or sub-contract subject to the Equal Opportunity Clause. Yes _____ No _____
2. Compliance Reports were required to be filed in connection with such contract or sub contract. Yes _____ No _____
3. Bidder has filed all compliance reports due under applicable instructions, including Monthly Employment Utilization Report (257). Yes _____ No _____ None Required _____
4. Have you ever been or are you being considered for sanction due to a violation of Executive Order 11246, as amended? Yes _____ No _____
Name and Title of Signer (please type)
Signature | Date

SAMPLE

Assurance of Compliance (Section 3, HUD Act of 1968)

TRAINING, EMPLOYMENT, AND CONTRACTING OPPORTUNITIES
FOR BUSINESSES AND LOWER INCOME PERSONS

A. The work to be performed under this contract is subject to the requirements of section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (section 3). The purpose of section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

B. The parties to this contract agree to comply with HUD's regulations in 24 CFR part 135, which implement section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the part 135 regulations.

C. The contractor agrees to send to each labor organization or representative of workers with which the contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the contractor's commitments under this section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.

D. The contractor agrees to include this section 3 clause in every subcontract subject to compliance with regulations in 24 CFR part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR part 135. The contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR part 135.

E. The contractor will certify that any vacant employment positions, including training positions, that are filled

(1) after the contractor is selected but before the contract is executed, and

(2) with persons other than those to whom the regulations of 24 CFR part 135 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24 CFR part 135.

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F. Noncompliance with HUD's regulations in 24 CFR part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

G. With respect to work performed in connection with section 3 covered Indian housing assistance, section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e) also applies to the work to be performed under this contract. Section 7(b) requires that to the greatest extent feasible

(i) preference and opportunities for training and employment shall be given to Indians, and

(ii) preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this contract that are subject to the provisions of section 3 and section 7(b) agree to comply with section 3 to the maximum extent feasible, but not in derogation of compliance with section 7(b).

Date: _____ Applicant _____

Address _____

_____

Authorized Signature _____

SAMPLE

Section 3 Plan
Please insert plan here.

SAMPLE

Federal Labor Standards Provisions
(Reproduced from HUD-4010 (2-84)

The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

A. 1. (i) Minimum Wages.
All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), 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 29 CFR 5.5(a)(1)(iv); 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 29 CFR Part 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 29 CFR Part 5.5(a)t1)(ii) 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.

(ii)(a) Any class of laborers or mechanics 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. HUD 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) It the contractor and the laborers and mechanics to be employed In the classification (if known), or their representatives, and HUD or its designee 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 HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, US 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 HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by

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the Office of Management and Budget under OMB control number 1215-0140.)

(c) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (Including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

(d) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (l)(b) or (c) of this paragraph, 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. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

2. Withholding. HUD or its designee shall upon Its own action or upon written request of 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 (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract. HUD or its designee 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 under such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

3. (i) Payrolls and basic records. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates or 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 me 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 (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.)

(ii) (a) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR Part 5.5(a)(3)(i). This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, DC. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149)

(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 maintained under 29 CFR Part 5.5 (a)(3)(i) 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 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 HUD or its designee 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, HUD or its designee 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 Part 5.12.

4. (i) Apprentices and Trainees. 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, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or it 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 Bureau of Apprenticeship and Training 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 journeyman hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions d 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 Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, 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 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 23 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 will insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as HUD or its designee may by appropriate instructions require, 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 Part 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 HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.

10. (i) Certification of Eligibility. 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) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(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) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code. 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1010, Title 18, U.S.C., "Federal Housing Administration transactions", provides in part "Whoever, for the purpose of influencing in any way the action of such Administration makes, utters or publishes any statement knowing the same to be false shall be fined not more than $5,000 or imprisoned not more than two years, or both."

11. Complaints, Proceedings, or testimony by Employees. No laborer or mechanic to whom the wage, salary. or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

B Contract Work Hours and Safety Standards Act. 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

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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 eight hours in any calendar day or in excess of forty hours in such workweek, whichever is greater

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcon-tractor 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 subparagraph (1) of this paragraph, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of eight hours or in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in subparagraph (1) of this paragraph.

(3) Withholding for unpaid Wages and liquidated damages. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor 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 contract, or any other Federally-assisted contract subject to me 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 subparagraph (2) of this paragraph.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph 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 subparagraphs (1) through (4) of this paragraph.

C. Health and Safety.

(1) No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

(2) The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 (formerly part 1518) and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act (Public Law 91-54, 83 Stat. 96).

(3) The Contractor shall include the provisions of this Article in every subcontract so that such provisions will be binding on each subcontractor. The Contractor shall take such action with respect to any subcontract as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

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Attachment to Federal Labor Standards Provisions

So-Called "Antikickback Act" and Regulations Promulgated Pursuant Thereto by The Secretary of Labor. United States Department of Labor. Title 18, U.S.C., Section 874 (HUD-4010.1, 2-76) (Replaces section I of the Act of June 13, 1934 (48 Stat. 948, 40 U.S.C., section 276B) pursuant to the Act of June 25, 1948, 62 Stat. 862).

Kickbacks from Public Works Employees

Whoever, by force, intimidation, or threat of procuring dismissal from employment, or by any other manner whatsoever induces any person employed in the construction, prosecution, completion or repair of any public building, public work, or building or work financed in whole or in part by loans or grants from the United States, to give up any part of the compensation to which he is entitled under his contract of employment, shall be fined not more than $5,000 or imprisoned not more than five years, or both.

Section 2 of the Act of June 13, 1934, as amended (48 Stat. 948, 62 Stat. 862, 63 Stat. 108, 72 Stat. 967, 40 U.S.C., section 276c)

The Secretary of Labor shall make reasonable regulations for contractors and subcontractors engaged in the construction, prosecution, completion or repair of buildings, public works or buildings or works financed in whole or in part by loans or grants from the United States, including a provision that each contractor shall furnish weekly a statement with respect to the wages paid each employee during the preceding week. Section 1001 of Title 18 (United States Code) shall apply to such statements.

-xxx- -

Pursuant to the aforesaid Anti-Kickback Act, the Secretary of Labor, United States Department of Labor, has promulgated the regulations hereinafter set forth, which regulations are found in Title 29, Subtitle A, Code of Federal Regulations, Part 3. The term "this part," as used in the regulations hereinafter set forth, refers to Part 3 last above mentioned. Said regulations are as follows:

Title 29- Labor, Subtitle A- Office of the Secretary of Labor, 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

Section 3.1 - Purpose and scope.

This part prescribes "anti-kickback" regulations under section 2 of the Act of June 13, 1934, as amended (40 U.S.C. 276c), popularly known as the Copeland Act. This part applies to any contract which is subject to Federal wage standards and which is for the construction, prosecution, completion, or repair of public buildings, public works or buildings or works financed in whole or in part by loans or grants from the United States. The part is intended to aid in the enforcement of the minimum wage provisions of the Davis-Bacon Act and the various statutes dealing with Federally assisted construction that contain similar minimum wage provisions, including those provisions which are not subject to Reorganization Plan No. 14 (e.g.,

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the College Housing Act of 1950, the Federal Water Pollution Control Act, and the Housing Act of l959), and in the enforcement of the overtime provisions of the Contract Work Hours Standards Act whenever they are applicable to construction work. The part details the obligation of contractors and subcontractors relative to the weekly submission of statements regarding the wages paid on work covered thereby; sets forth the circumstances and procedures governing the making of payroll deductions from the wages of those employed on such work; and delineates the methods of payment permissible on such work.

Section 3.2- Definitions.

As used in the regulations in this part:

(a) The terms "building" or "work" generally include construction activity as distinguished from manufacturing, furnishing of materials, or servicing and maintenance work. The terms include, without limitation, buildings, structures, and improvements of all types, such as bridges, dams, plants, highways, parkways, streets, subways, tunnels, sewers, mains, powerlines, pumping stations, railways, airports, terminals, docks, piers, wharves, ways, lighthouses, buoys, jetties, breakwaters, levees, and canals; dredging, shoring, scaffolding, drilling, blasting, excavating, clearing, and landscaping. Unless conducted in connection with and at the site of such a building or work as is described in the foregoing sentence, the manufacture or furnishing of materials, articles, supplies, or equipment (whether or not a Federal or State agency acquires title to such materials, articles, supplies, or equipment during the course of the manufacture or furnishing, or owns the materials from which they are manufactured or furnished) is not a "building" or "work" within the meaning of the regulations in this part.

(b) The terms "construction," "prosecution," "completion," or "repair" mean all types of work done on a particular building or work at the site thereof, including, without limitation, altering, remodeling, painting and decorating, the transporting of materials and supplies to or from the building or work by the employees of the construction contractor or construction subcontractor, and the manufacturing or furnishing of materials, articles, supplies, or equipment on the site of the building or work, by persons employed at the site by the contractor or subcontractor.

(c) The terms "public building" or "public work" include building or work for whose construction, prosecution, completion, or repair, as defined above, a Federal agency is a contracting party, regardless of whether title thereof is in a Federal agency.

(d) The term "building or work financed in whole or in part by loans or grants from the United States" includes building or work for whose construction, prosecution, completion, or repair, as defined above, payment or part payment is made directly or indirectly from funds provided by loans or grants by a Federal agency. The term does not include building or work for which Federal assistance is limited solely to loan guarantees or insurance.

(e) Every person paid by a contractor or subcontractor in any manner for his labor in the construction, prosecution, completion, or repair of a public building or public work or building or work financed in whole or in part by loans or grants from the United States is "employed" and receiving · wages," regardless of any contractual relationship alleged to exist between him and the real employer.

(f) The term any affiliated person" includes a spouse, child, parent, or other close relative of the contractor or subcontractor; a partner or officer of the contractor or subcontractor; a corporation closely connected with the contractor or subcontractor as parent, subsidiary or otherwise, and an officer or agent of such corporation.

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(g) The term "Federal agency" means the United States, the District of Columbia, and all executive departments, independent establishments, administrative agencies, and instrumentalities of the United States and of the District of Columbia, including corporations, all or substantially all of the stock of which is beneficially owned by the United States, by the District of Columbia, or any of the foregoing departments, establishments, agencies, and instrumentalities.

Section 3.3 - Weekly statement with respect to payment of wages.

(a) As used in this section, the term "employee" shall not apply to persons in classifications higher than that of laborer or mechanic and those who are the immediate supervisors of such employees.

(b) Each contractor or subcontractor engaged in the construction, prosecution, completion, or repair of any public building or public work, or building or work financed in whole or in part by loans or grants from the United States, shall furnish each week a statement with respect to the wages paid each of its employees engaged on work covered by 29 CFR Parts 3 and 5 during the preceding weekly payroll period. This statement shall be executed by the contractor or subcontractor or by an authorized officer or employee of the contractor or subcontractor who supervises the payment of wages and shall be on form WH 348, "Statement of Compliance," or on an identical form on the back of WH 347, "Payroll (For Contractors Optional Use)" or on any form with identical wording. Sample copies of WH 347 and WH 348 may be obtained from the Government contracting or sponsoring agency, and copies of these forms may be purchased at the Government Printing Office.

(c) The requirements of this section shall not apply to any contract of $2,000 or less.

(d) Upon a written finding by the head of a Federal agency, the Secretary of Labor may provide reasonable limitations, variations, tolerances and exemptions from the requirements of this section subject to such conditions as the secretary of Labor may specify.

(29 CFR. 9S, Jan. 4, 1964, as amended at 33 CFR 10186, July 17, 1968)

Section 3.4. - Submission of weekly statements and the preservation and inspection of weekly payroll records.

(a) Each weekly statement required under section 3.3 shall be delivered by the contractor or subcontractor, within seven days after the regular payment date of the payroll period, to the owner, representative of a Federal or State agency at the site of the building or work, the statement shall be mailed by the contractor or subcontractor, within such time, to the owner contracting for or financing the building or work. After such examination and check as may be made, such statement, or a copy thereof, shall be kept available, or shall be transmitted together with a report of any violation, in accordance with applicable procedures prescribed by the United States Department of Labor.

(b) Each contractor or subcontractor shall preserve his weekly payroll records for a period of three years from date of completion of the contract. The payroll records shall set out accurately and completely the name and address of each laborer and mechanic, his correct classification, rate of pay, daily and weekly number of hours worked, deductions made, and actual wages paid. Such payroll records shall be made available at all times for inspection by the contracting officer or his authorized representative, and by authorized representatives of the Department of Labor.

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Section 3.5- Payroll deductions permissible without application to or approval of the Secretary of Labor.

Deductions made under the circumstances or in the situations described in the paragraphs of this section may be made without application to and approval of the Secretary of Labor.

(a) Any deduction made in compliance with the requirements of Federal, State or local law, such as Federal or State withholding income taxes and Federal social security taxes.

(b) Any deduction of sums previously paid to the employee as a bona fide prepayment of wages when such prepayment is made without discount or interest. A "bona fide prepayment of wages" is considered to have been made only when cash or its equivalent has been advanced to the person employed in such manner as to give him complete freedom of disposition of the advanced funds.

(c) Any deduction amounts required by court process to be paid to another, unless the deduction is in favor of the contractor, subcontractor or any affiliated person, or when collusion or collaboration exists.

(d) Any deduction constituting a contribution on behalf of the person employed to funds established by the employer or representatives of employees, or both, for the purpose of providing either from principal or income, or both, medical or hospital care, pensions or annuities on retirement, death benefits, compensation for injuries, illness, accidents, sickness, or disability, or for insurance to provide any of the foregoing, or unemployment benefits, vacation pay, savings accounts, or similar payments for the benefit of employees, their families and dependents: Provided, however, That the following standards are met: (I) The deduction is not otherwise prohibited by law; (2) it is either: (i) Voluntarily consented to by the employee in writing and in advance of the period in which the work is to be done and such consent is not a condition either for the obtaining of or for the continuation of employment, or (ii) provided for in a bona fide collective bargaining agreement between the contractor or subcontractor and representatives of its employees; (3) no profit or other benefit is otherwise obtained, directly or indirectly, by the contractor or subcontractor or any affiliated person in the form of commission, dividend, or otherwise; and (4) the deductions shall serve the convenience and interest of the employee.

(e) Any deduction contributing toward the purchase of United States Defense Stamps and Bonds when voluntarily authorized by the employee.

(f) Any deduction requested by the employee to enable him to repay loans to or to purchase shares in credit unions organized and operated in accordance with Federal and State credit union statutes.

(g) Any deduction voluntarily authorized by the employee for the making of contributions to governmental or quasi-governmental agencies, such as the American Red Cross.

(h) Any deduction voluntarily authorized by the employee for the making of contributions to Community Chests, United Givers Funds, and similar charitable organizations.

(i) Any deductions to pay regular union initiation fees and membership dues, not including finds or special assessments: Provided, however, That a collective bargaining agreement between the

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contractor or subcontractor and representatives of its employees provides for such deductions and the deductions are not otherwise prohibited by law.

(j) Any deduction not more than for the "reasonable cost" of board, lodging, or other facilities meeting the requirements of section 3(m) of the Fair Labor Standards Act of 1938, as amended, and Part 431 of this title. When such a deduction is made the additional records required under section S16.27(a) of this title shall be kept.

Section 3.6- Payroll deductions permissible with the approval of the Secretary of Labor.

Any contractor or subcontractor may apply to the Secretary of Labor for permission to make any deduction not permitted under section 3.5. The Secretary may grant permission whenever he finds that:

(a) The contractor, subcontractor, or any affiliated person does not make a profit or benefit directly or indirectly from the deduction either in the form of a commission, dividend, or otherwise;

(b) The deduction is not otherwise prohibited by law;

(c) The deduction is either (1) voluntarily consented to by the employee in writing and in advance of the period in which the work is to be done and such consent is not a condition either for the obtaining of employment or its continuance, or (2) provided for in a bona fide collective bargaining agreement between the contractor or subcontractor and representatives of its employees; and

(d) The deduction serves the convenience and interest of the employee.

Section 3.7 - Applications for the approval of the Secretary of Labor.

Any application for the making of payroll deductions under section 3.6 shall comply with the requirements prescribed in the following paragraphs of this section:

(a) The application shall be in writing and shall be addressed to the Secretary of Labor.

(b) The application shall identify the contract or contracts under which the work in question is to be performed. Permission will be given for deductions only on specific, identified contracts, except upon a showing of exceptional circumstances.

(c) The application shall state affirmatively that there is compliance with the standards set forth in the provisions of section 3.6. The affirmation shall be accompanied by a full statement of the facts indicating such compliance.

(d) The application shall include a description of the proposed deduction, the purpose to be served thereby, and the classes of laborers or mechanics from whose wages the proposed deduction would be made.

(e) The application shall state the name and business of any third person to whom any funds obtained from the proposed deductions are to be transmitted and the affiliation of such person, if any, with the applicant.

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Section 3.8 - Action by the Secretary of Labor upon applications.

The Secretary of Labor shall decide whether or not the requested deduction is permissible under provisions of section 3.6; and shall notify the applicant in writing of his decision.

Section 3.9 - Prohibited payroll deductions.

Deductions not elsewhere provided for by this part and which are not found to be permissible under section 3.6 are prohibited.

Section 3.10 - Methods of payment of wages.

The payment of wages shall be by cash, negotiable instruments payable on demand, or the additional forms of compensation for which deductions are permissible under this part. No other methods of payment shall be recognized on work subject to the Copeland Act.

Section 3.11- Regulations part of contract.

All contracts made with respect to the construction, prosecution, completion, or repair of any public building or public work or building or work financed in whole or in part by loans or grants from the United States covered by the regulations in this part shall expressly bind the contractor or subcontractor to comply with such of the regulations in this part as may be applicable.

Special Equal Opportunity Provisions:

A. 3-Paragraph Equal Opportunity Clause for Activities and Contracts Not Subject to Executive Order 11246, as Amended (applicable to Federally assisted construction contracts and related subcontracts $10,00 and under)

During the performance of this Contract, the Contractor agrees as follows:

1. The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. The Contractor shall take affirmative action to ensure that applicants for employment are employed, and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

2. The Contractor shall post in conspicuous places, available to employees and applicants for employment, notices to be provided by contracting officer setting forth the provisions of this nondiscrimination clause. The Contractor **shall state that** all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.

3. Contractors shall incorporate foregoing requirements in all subcontracts.

B. Executive Order 11246 (contracts/subcontracts above $10,000)

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1. Section 202 Equal Opportunity Clause

During the performance of this Contract, the Contractor agrees as follows:

a) The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

b) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration without regard to race, color, religion, sex or national origin.

c) The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided by the Contract Compliance Officer advising the said labor union or workers' representatives of the Contractor's commitment under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

d) The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations and relevant order of, the Secretary of Labor.

e) The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records and accounts by the Department and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and others.

f) In the event of the Contractor's non-compliance with the nondiscrimination clauses of this Contract or with any of the said rules, regulations or orders, this Contract may be canceled, terminated or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, or by rule, regulation or order of the Secretary of Labor, or as otherwise provided by law.

g) The Contractor will include the provisions of the sentence immediately preceding paragraph a. and the provisions of paragraphs a. through g. in every subcontract or purchase order unless exempted by rules, regulations or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each Subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase

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order as the Department may direct as a means of enforcing such provisions, including sanctions for non-compliance.

Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a Subcontractor or vendor as a result of such direction by the Department, the Contractor may request the United States to enter into such litigation to protect the interest of the United States.

Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246) (applicable to contract/subcontracts exceeding $10,000)

a) The Contractor's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

b) The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for Minority Participation	Goals for Female Participation
1.6%	6.9%

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or Federally assisted) performed in the covered area. If the Contractor performs construction work in a geographic area located outside of the covered area, it shall apply the goals established for such geographic area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its Federally involved and non-Federally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the Contract, the Executive Order and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

c) As used in this notice, and in the contract resulting from the solicitation, the "covered area" is (insert description of the geographical areas where the contract is to be performed giving the state, county, and city, if any).

Standard CDBG Assisted Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246)

a. As used in these specifications:

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(1) "Covered area" means the geographical area described in the solicitation from which this Contract resulted.

(2) "Director" means Director, Office of Federal Contract Compliance Program, United States Department of Labor, or any person to whom the Director delegates authority.

(3) "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U. S. Treasury Department Form 941.

(4) "Minority" includes:

(a) Black (all persons having origins in any of the black African racial groups not of Hispanic origin).

(b) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race).

(c) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent or the Pacific Islands).

(d) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

(5) Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of $10,000 the provisions of these specifications and the notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this Contract resulted. **NOT APPLICABLE TO FILED SUBCONTRACTORS AS DEFINED BY MGL c.149 §44F**

(6) If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a "Hometown Plan" approved by the U. S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the plan area (including goals and timetables) shall be in accordance with that plan for those trades which have unions participating in the plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the plan goals and timetables.

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(7) The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through p of these specifications. The goals set forth in the solicitation from which this Contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction Contractors performing contracts in geographical areas where they do not have a Federal or Federally-assisted construction contract shall apply the minority and female goals established for the geographic area where the contract is being performed. Goals are published periodically in the Federal Register in notice form and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

(8) Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

(9) In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U. S. Department of Labor.

(10) The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

(a) Ensure and maintain a working environment free of harassment, intimidation and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific atdavistion to minority or female individuals working at such sites or in such facilities.

(b) Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

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(c) Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

(d) Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has nor referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

(e) Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

(f) Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

(g) Review, the company’s EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as superintendents, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed and disposition of the subject matter.

(h) Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.

(i) Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students

SAMPLE

and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures and tests to be used in the selection process.

(j) Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

(k) Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

(I) Conduct, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

(m) Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

(n) Ensure that all facilities and company activities are nonsegregated except that separate or single-use toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

(o) Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

(p) Conduct a review of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

(11) Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on

SAMPLE

behalf, of the Contractor. The obligation shall not be a defense for the Contractor's non-compliance.

(I2) A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and nonminority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even through the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

(13) The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex or national origin.

(14) The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

(15) The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

(16) The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at **least as extensive as** those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

(17) The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, Contractors shall not be required to maintain separate records.

(18) Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g.,

SAMPLE

those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

D. Title VI Clause, Civil Rights Act of 1964

Under Title Vl of the Civil Rights Act of 1964, no person shall, on the grounds of race, color or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

E. Section 109 Clause, Housing and Community Development Act of 1974

No person in the United States shall on the grounds of race, color, national origin or sex be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity funded in whole or in part with funds made available under this title.

F. "Section 3" Compliance in the Provision of Training, Employment and Business Opportunities (from Federal Register 6/30/94)

The work to be performed under this Contract is subject to the requirements of section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u. (section 3). The purpose of section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD assisted projects covered by section 3 shall, to the greatest extent feasible, be directed to low and very low income persons, particularly persons who are recipients of HUD assistance for housing.

The parties to this contract agree to comply HUD’s regulations in 24 CFR 135, which implement section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the part 135 regulations.

The Contractor agrees to send to each labor organization or representative of workers with which the contractor has a collective bargaining agreement or other understanding, if any, a notice advising the said labor organization or workers' representative of the contractor’s commitments under this section 3 clause and will post copies of the notice in conspicuous places at the worksite where both employees and applicants for employment or training positions can see the notice. The notice shall describe the section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each, and the name and location of the person(s) taking applications for each of the positions; and the anticipated date that the work shall begin.

The Contractor agrees to include this section 3 clause in every subcontract subject to compliance with regulations in 24 CFR part 135, and agrees to take the appropriate action, as provided in an applicable provision of the subcontract or in this section 3 clause, upon finding that the subcontractor is in violation of the regulations in 24 CFR part 135. The contractor will not subcontract with any subcontractor where it has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR Part 135.

The contractor will certify that any vacant employment positions, including training positions, including training positions, that are filled (1) after the contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations

SAMPLE

of 24 CFR part 135 require employment opportunities to be directed, were not filled to circumvent the contractors obligations under 24 CFR part 135.

Non compliance with HUD's regulations in 24 CFR part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

With respect to work performed in connection with section 3 covered Indian Housing Assistance, section 7(b) of the Indian Self Determination and Education Assistance Act (25 USC 450e) also applies to the work to be performed under this contract. Section 7(b) requires that to the greatest extent feasible (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this contract that are subject to the provisions of section 3 and section 7(b) agree to comply with section 3 to the maximum extent feasible, but not in derogation of compliance with section 7(b).

The contractor will include the paragraphs of this clause in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of 9/25/65, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the Owner, HUD, and MASS. CDBG may direct as a means of enforcing such provisions, including sanctions for noncompliance. Provided however, that in the event a Contractor becomes involved in, or is threatened with, litigation, with a subcontractor or vendor as a result of such direction by the Department, the contractor may request the United States to enter into such litigation to protect the interest of the United States.

The paragraphs of this clause shall be included in any subcontracts for construction, demolition or landscaping over $100,000. If this is a construction, demolition, or landscaping contract for $50,000 or more, and the contractor has over 50 employees, the contractor shall develop a written Affirmative Action Program. The program shall provide detailed steps to guarantee equal employment opportunity for minority groups and shall include a table of job classifications.

SAMPLE

G. Rehabilitation Act of 1973, Section 504 Handicapped (if $2,500 or over)

Affirmative Action for Handicapped Workers

1. The Contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap in regard to any position for which the employee or applicant for employment is qualified. The Contractor agrees to take affirmative action to employ, advance in employment and otherwise treat qualified handicapped individuals without discrimination based upon their physical or mental handicap in all employment practices such as the following: employment, upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

2. The Contractor agrees to comply with the rules, regulations and relevant orders of the Secretary of Labor issued pursuant to the Act.

3. In the event of the Contractor's non-compliance with the requirements of this clause, actions for non-compliance may be taken in accordance with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.

   The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Director, provided by or through the contracting officer. Such notices shall state the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified handicapped employees and applicants for employment, and the rights of applicants and employees.

5. The Contractor will notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of Section 503 of the Rehabilitation Act of 1973, and is committed to take affirmative action to employ and advance in employment physically and mentally handicapped individuals.

6. The Contractor will include the provisions of this clause in every subcontract or purchase order of $2,500 or more unless exempted by rules, regulations or orders of the Secretary issued pursuant to Section 503 of the Act, so that such provisions will be binding upon each Subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the Director of the Office of Federal Contract Compliance Programs may direct to enforce such provisions, including action for non-compliance.

H. Section 402 Veterans of the Vietnam Era (if $10,000 or over)
Affirmative Action for Disabled Veterans and Veterans of the Vietnam Era
(Updated clause from 1/5/95 Federal Register Pages 1985-1987 as follows; first paragraph of number 2 and number 8 a-c)

1. The Contractor will not discriminate against any employee or applicant for employment because he or she is a disabled veteran or veteran of the Vietnam era in regard to any position for which the employee or applicant for employment is qualified. The Contractor agrees to take affirmative action to employ, advance in employment and otherwise treat qualified disabled veterans and veterans of the Vietnam era without discrimination based on their disability or veteran status in all employment practices such as the following: employment upgrading, demotion or

transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.

2. The Contractor agrees to list all employment openings which exist at the time of the execution of this contract and those which occur during the performance of this contract, including those not generated by this contract and including those occurring at an establishment of the Contractor other than the one wherein the contract is being performed but excluding those of independently operated corporate affiliates, at an appropriate local office of the State employment service system wherein the opening occurs.

   State and local government agencies holding Federal contracts of S10,000 or more shall also list all their suitable openings with the appropriate office of the State employment service, but are not required to provide those reports set forth in paragraphs 4 and 5.

3. Listing of employment openings with the employment service system pursuant to this clause shall be made at least concurrently with the use of any other recruitment source or effort and shall involve the normal obligations which attach to the placing of a bona fide job order, including the acceptance of referrals of veterans and non-veterans. The listing of employment openings does not require the hiring of any particular job applicant or from any particular group of job applicants, and nothing herein is intended to relieve the Contractor from any requirements in Executive Orders or regulations regarding nondiscrimination in employment.

4. The reports required by paragraph 2 of this clause shall include, but not be limited to, periodic reports which shall be filed at least quarterly with the appropriate local office or, where the Contractor has more than one hiring location in a State, with the central office of that State employment service. Such reports shall indicate for each hiring location
   (1) the number of individuals hired during the reporting period,
   (2) the number of nondisabled veterans of the Vietnam era hired,
   (3) the number of disabled veterans of the Vietnam era hired, and
   (4) the total number of disabled veterans hired.

   The reports should include covered veterans hired for on-the-job training under 38 U.S.C. 1987. The Contractor shall submit a report within 30 days after the end of each reporting period wherein any performance is made on this Contract identifying data for each hiring location copies of the reports submitted until the expiration of one year after final payment under the Contract, during which time these reports and related documentation shall be made available, upon request, for examination by any authorized representatives of the contracting officer or of the Secretary of Labor. Documentation would include personnel records respecting job openings, recruitment and placement.

5. Whenever the Contractor becomes contractually bound to the listing provisions of this clause, it shall advise the employment service system in each State where it has establishments of the name and location of each hiring location in the State. As long as the Contractor is contractually bound to these provisions and has so advised the State system, there is no need to advise the State system of subsequent contracts. The Contractor may advise the State system when it is no longer bound by the contract clause.

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7. The provisions of paragraphs 2, 3, 4 and 5 of this clause do not apply to openings which the Contractor proposes to fill from within his own organization or to fill pursuant to a customary and traditional employer-union hiring arrangement. This exclusion does not apply to a particular opening once an employer decides to consider applicants outside of his own organization or employer-union arrangement for that opening.

8. As used in this clause:

   a. "All employment openings" includes all positions except executive and top management, those positions will be filled from within the contractor's organization or positions lasting three days or less. This term includes full time employment, temporary employment of more than three days' duration, and part time employment.

   b. "Appropriate office of the State employment service system" means the local office of the Federal-State national system of public employment offices with assigned responsibility for serving the area where the employment opening is to be filled...

   c. "Positions that will be filled from within the contractor's own organization" means employment openings for which no consideration will be given to persons outside the Contractor's organization (Including any affiliates, subsidiaries, and the parent companies) and includes any openings which the Contractor proposes to fill from regularly established "recall" lists. The exception does not apply to a particular opening once an employer decides to consider applicants outside his or her own organization.

   d. "Openings which the Contractor proposes to fill pursuant to a customary- and traditional employer-union hiring arrangement" means employment openings which the Contractor proposes to fill from union halls, which is part of the customary and traditional hiring relationship which exists between the Contractor and representatives of his employees.

9. The Contractor agrees to comply with the rules, regulations and relevant orders of the Secretary of Labor issued pursuant to the Act.

10. In the event of the Contractor's non-compliance with the requirements of this clause, actions for non-compliance may be taken in accordance with the rules, regulations and relevant orders of the Secretary of Labor issued pursuant to the Act.

11. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Director, provided by or through the contracting officer. Such notice shall state the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified disabled veterans and veterans of the Vietnam era for employment, and the rights of applicants and employees.

12. The Contractor will notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the

Contractor is bound by the terms of the Vietnam Era Veterans Readjustment Assistance Act, and is committed to take affirmative action to employ and advance in employment qualified disabled veterans and veterans of the Vietnam era.

13. The Contractor will include the provisions of this clause in every subcontract or purchase order of $10,000 or more unless exempted by rules, regulations or orders of the Secretary issued pursuant to the Act, so that such provisions will be binding upon each Subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the Director of the Office of Federal Contract Compliance Programs may direct to enforce such provisions, including action for non-compliance.

"General Decision Number: MA20220025 04/22/2022

Superseded General Decision Number: MA20210025

State: Massachusetts

Construction Type: Highway

County: Worcester County in Massachusetts.

HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $15.00 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2022.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $11.25 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at https://www.dol.gov/agencies/whd/government-contracts.

Modification Number	Publication Date
0	01/07/2022
1	02/25/2022
2	04/22/2022

* CARP0336-004 03/01/2022

	Rates	Fringes
CARPENTER (Includes Form Work)	$ 44.53	29.52

ELEC0103-007 09/01/2021

	Rates	Fringes
ELECTRICIAN	$ 56.36	34.39

ENGI0004-030 12/01/2021

	Rates	Fringes
POWER EQUIPMENT OPERATOR		
Group 1	$ 48.73	29.25+A
GROUP 1	$ 51.38	31.10
Group 2	$ 48.23	29.25+A
GROUP 2	$ 50.83	31.10

FOOTNOTE FOR POWER EQUIPMENT OPERATORS:
A. PAID HOLIDAYS: New Year's Day, Washington's Birthday, Labor Day, Memorial Day, Independence Day, Patriot's Day, Columbus Day, Veteran's Day, Thanksgiving Day, Christmas Day

POWER EQUIPMENT OPERATORS CLASSIFICATIONS
Group 1: Backhoe/Excavator/Trackhoe; Bobcat/Skid Steer/Skid Loader; Broom/Sweeper; Gradall; Loader; Paver (Asphalt, Aggregate, and Concrete); Post Driver (Guardrail/Fences)
Group 2: Bulldozer; Grader/Blade; Roller

ENGI0004-031 12/01/2017

	Rates	Fringes
POWER EQUIPMENT OPERATOR: (Milling Machine)	$ 29.80	26.66+A

FOOTNOTE FOR POWER EQUIPMENT OPERATORS:
A. PAID HOLIDAYS: New Year's Day, Washington's Birthday, Labor Day, Memorial Day, Independence Day, Patriot's Day, Columbus Day, Veteran's Day, Thanksgiving Day, Christmas Day

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* IRON0007-028 03/16/2022

	Rates	Fringes
IRONWORKER, STRUCTURAL	$ 50.30	39.20

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* IRON0007-029 03/16/2022

	Rates	Fringes
IRONWORKER, ORNAMENTAL	$ 50.60	39.20

LABO0039-003 06/01/2018

	Rates	Fringes
LABORER		

Asphalt, Includes Raker, Shoveler, Spreader and Distributor	$ 33.50	22.92
Common or General	$ 33.25	22.92
Guardrail Installation	$ 33.50	22.92

PAIN0035-023 07/01/2019

	Rates	Fringes
PAINTER (Steel)	$ 50.66	30.90

SUMA2014-015 01/11/2017

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 56.70	21.08
IRONWORKER, REINFORCING	$ 56.48	20.62
LABORER: Concrete Saw (Hand Held/Walk Behind)	$ 41.78	18.37
LABORER: Landscape	$ 40.39	17.68
OPERATOR: Crane	$ 52.14	21.08
OPERATOR: Forklift	$ 64.67	0.00
OPERATOR: Mechanic	$ 48.14	17.02
OPERATOR: Piledriver	$ 44.46	16.94
PAINTER: Spray (Linestriping)	$ 48.00	0.00
PILEDRIVERMAN	$ 45.65	23.33
TRAFFIC CONTROL: Flagger	$ 23.00	20.44
TRAFFIC CONTROL: Laborer-Cones/ Barricades/Barrels - Setter/Mover/Sweeper	$ 44.49	12.41
TRUCK DRIVER: Concrete Truck	$ 33.69	15.79
TRUCK DRIVER: Dump Truck	$ 30.38	7.20
TRUCK DRIVER: Flatbed Truck	$ 48.53	0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including

preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material,

etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISIO"

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

Prevailing Wage Rates

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

CHARLES D. BAKER
Governor

KARYN E. POLITO
Lt. Governor

ROSALIN ACOSTA
Secretary

MICHAEL FLANAGAN
Director

Awarding Authority: Town of Southbridge

Contract Number:

City/Town: SOUTHBRIDGE

Description of Work: Construct hand ball courts, ADA pathway, ADA swing, sidewalks, and skate park.

Job Location: 1 Worcester Street and 49 Henry Street Southbridge

Information about Prevailing Wage Schedules for Awarding Authorities and Contractors

- **The wage rates will remain in effect for the duration of the project, except in the case of multi-year public construction projects. For construction projects lasting longer than one year, awarding authorities must request an updated wage schedule no later than two weeks before the anniversary of the date the contract was executed by the awarding authority and the general contractor.** For multi-year CM AT RISK projects, the awarding authority must request an annual update no later than two weeks before the anniversary date, determined as the earlier of: (a) the execution date of the GMP Amendment, or (b) the execution date of the first amendment to permit procurement of construction services. The annual update requirement is not applicable to 27F "rental of equipment" contracts. **The updated wage schedule must be provided to all contractors, including general and sub-contractors, working on the construction project.**
- This wage schedule applies only to the specific project referenced at the top of this page and uniquely identified by the "Wage Request Number" on all pages of this schedule.
- An Awarding Authority must request an updated wage schedule if it has not opened bids or selected a contractor within 90 days of the date of issuance of the wage schedule. For CM AT RISK projects (bid pursuant to G.L. c.149A), the earlier of: (a) the execution date of the GMP Amendment, or (b) the bid for the first construction scope of work must be within 90-days of the wage schedule issuance date.
- The wage schedule shall be incorporated in any advertisement or call for bids for the project as required by M.G.L. c. 149, § 27. The wage schedule shall be made a part of the contract awarded for the project. The wage schedule must be posted in a conspicuous place at the work site for the life of the project in accordance with M.G.L. c. 149 § 27. The wages listed on the wage schedule must be paid to employees performing construction work on the project whether they are employed by the prime contractor, a filed sub-bidder, or a sub-contractor.
- Apprentices working on the project are required to be registered with the Massachusetts Division of Apprentice Standards (DAS). Apprentices must keep their apprentice identification card on their persons during all work hours on the project. An apprentice registered with DAS may be paid the lower apprentice wage rate at the applicable step as provided on the prevailing wage schedule. **Any apprentice not registered with DAS regardless of whether they are registered with another federal, state, local, or private agency must be paid the journeyworker's rate.**
- Every contractor or subcontractor working on the construction project must submit weekly payroll reports and a Statement of Compliance directly to the awarding authority by mail or email and keep them on file for three years. Each weekly payroll report must contain: the employee's name, address, occupational classification, hours worked, and wages paid. Do not submit weekly payroll reports to DLS. For a sample payroll reporting form go to http://www.mass.gov/dols/pw.
- Contractors with questions about the wage rates or classifications included on the wage schedule have an affirmative obligation to inquire with DLS at (617) 626-6953.
- Contractors must obtain the wage schedules from awarding authorities. Failure of a contractor or subcontractor to pay the prevailing wage rates listed on the wage schedule to all employees who perform construction work on the project is a violation of the law and subjects the contractor or subcontractor to civil and criminal penalties.
- Employees not receiving the prevailing wage rate set forth on the wage schedule may file a complaint with the Fair Labor Division of the office of the Attorney General at (617) 727-3465.

Issue Date: 06/06/2022 **Wage Request Number:** 20220606-064

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
Construction						
(2 AXLE) DRIVER - EQUIPMENT *TEAMSTERS JOINT COUNCIL NO. 10 ZONE B*	12/01/2021	$35.95	$13.41	$16.01	$0.00	$65.37
(3 AXLE) DRIVER - EQUIPMENT *TEAMSTERS JOINT COUNCIL NO. 10 ZONE B*	12/01/2021	$36.02	$13.41	$16.01	$0.00	$65.44
(4 & 5 AXLE) DRIVER - EQUIPMENT *TEAMSTERS JOINT COUNCIL NO. 10 ZONE B*	12/01/2021	$36.14	$13.41	$16.01	$0.00	$65.56
ADS/SUBMERSIBLE PILOT *PILE DRIVER LOCAL 56 (ZONE 2)*	08/01/2020	$103.05	$9.40	$23.12	$0.00	$135.57
For apprentice rates see "Apprentice- PILE DRIVER"						
AIR TRACK OPERATOR *LABORERS - ZONE 2*	06/01/2022	$37.06	$9.10	$16.64	$0.00	$62.80
	12/01/2022	$37.91	$9.10	$16.64	$0.00	$63.65
	06/01/2023	$38.81	$9.10	$16.64	$0.00	$64.55
	12/01/2023	$39.71	$9.10	$16.64	$0.00	$65.45
For apprentice rates see "Apprentice- LABORER"						
AIR TRACK OPERATOR (HEAVY & HIGHWAY) *LABORERS - ZONE 2 (HEAVY & HIGHWAY)*	12/01/2021	$36.16	$9.10	$16.64	$0.00	$61.90
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
ASBESTOS WORKER (PIPES & TANKS) *HEAT & FROST INSULATORS LOCAL 6 (WORCESTER)*	12/01/2020	$38.10	$12.80	$9.45	$0.00	$60.35
ASPHALT RAKER *LABORERS - ZONE 2*	06/01/2022	$36.56	$9.10	$16.64	$0.00	$62.30
	12/01/2022	$37.41	$9.10	$16.64	$0.00	$63.15
	06/01/2023	$38.31	$9.10	$16.64	$0.00	$64.05
	12/01/2023	$39.21	$9.10	$16.64	$0.00	$64.95
For apprentice rates see "Apprentice- LABORER"						
ASPHALT RAKER (HEAVY & HIGHWAY) *LABORERS - ZONE 2 (HEAVY & HIGHWAY)*	12/01/2021	$35.66	$9.10	$16.64	$0.00	$61.40
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE *OPERATING ENGINEERS LOCAL 4*	12/01/2021	$51.38	$14.00	$16.05	$0.00	$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BACKHOE/FRONT-END LOADER *OPERATING ENGINEERS LOCAL 4*	12/01/2021	$51.38	$14.00	$16.05	$0.00	$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
BARCO-TYPE JUMPING TAMPER *LABORERS - ZONE 2*	06/01/2022	$36.56	$9.10	$16.64	$0.00	$62.30
	12/01/2022	$37.41	$9.10	$16.64	$0.00	$63.15
	06/01/2023	$38.31	$9.10	$16.64	$0.00	$64.05
	12/01/2023	$39.21	$9.10	$16.64	$0.00	$64.95
For apprentice rates see "Apprentice- LABORER"						
BLOCK PAVER, RAMMER / CURB SETTER *LABORERS - ZONE 2*	06/01/2022	$37.06	$9.10	$16.64	$0.00	$62.80
	12/01/2022	$37.91	$9.10	$16.64	$0.00	$63.65
	06/01/2023	$38.81	$9.10	$16.64	$0.00	$64.55
	12/01/2023	$39.71	$9.10	$16.64	$0.00	$65.45
For apprentice rates see "Apprentice- LABORER"						
BLOCK PAVER, RAMMER / CURB SETTER (HEAVY & HIGHWAY) *LABORERS - ZONE 2 (HEAVY & HIGHWAY)*	12/01/2021	$36.16	$9.10	$16.64	$0.00	$61.90
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
BOILER MAKER *BOILERMAKERS LOCAL 29*	01/01/2020	$46.10	$7.07	$17.98	$0.00	$71.15

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *BOILERMAKER - Local 29*

Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	65	$29.97	$7.07	$11.69	$0.00	$48.73
2	65	$29.97	$7.07	$11.69	$0.00	$48.73
3	70	$32.27	$7.07	$12.59	$0.00	$51.93
4	75	$34.58	$7.07	$13.49	$0.00	$55.14
5	80	$36.88	$7.07	$14.38	$0.00	$58.33
6	85	$39.19	$7.07	$15.29	$0.00	$61.55
7	90	$41.49	$7.07	$16.18	$0.00	$64.74
8	95	$43.80	$7.07	$17.09	$0.00	$67.96

Notes:

Apprentice to Journeyworker Ratio:1:4

BRICK/STONE/ARTIFICIAL MASONRY (INCL. MASONRY WATERPROOFING) — 02/01/2022 — $55.01 — $11.39 — $21.65 — $0.00 — $88.05
BRICKLAYERS LOCAL 3 (WORCESTER)

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

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$27.51	$11.39	$21.65	$0.00	$60.55
2	60	$33.01	$11.39	$21.65	$0.00	$66.05
3	70	$38.51	$11.39	$21.65	$0.00	$71.55
4	80	$44.01	$11.39	$21.65	$0.00	$77.05
5	90	$49.51	$11.39	$21.65	$0.00	$82.55

Notes:

Apprentice to Journeyworker Ratio:1:5

BULLDOZER/GRADER/SCRAPER — 12/01/2021 — $50.83 — $14.00 — $16.05 — $0.00 — $80.88
OPERATING ENGINEERS LOCAL 4

For apprentice rates see "Apprentice- OPERATING ENGINEERS"

CAISSON & UNDERPINNING BOTTOM MAN — 12/01/2021 — $42.33 — $9.10 — $17.72 — $0.00 — $69.15
LABORERS - FOUNDATION AND MARINE

For apprentice rates see "Apprentice- LABORER"

CAISSON & UNDERPINNING LABORER — 12/01/2021 — $41.18 — $9.10 — $17.72 — $0.00 — $68.00
LABORERS - FOUNDATION AND MARINE

For apprentice rates see "Apprentice- LABORER"

CAISSON & UNDERPINNING TOP MAN — 12/01/2021 — $41.18 — $9.10 — $17.72 — $0.00 — $68.00
LABORERS - FOUNDATION AND MARINE

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CARBIDE CORE DRILL OPERATOR *LABORERS - ZONE 2*	06/01/2022	$36.56	$9.10	$16.64	$0.00	$62.30
	12/01/2022	$37.41	$9.10	$16.64	$0.00	$63.15
	06/01/2023	$38.31	$9.10	$16.64	$0.00	$64.05
	12/01/2023	$39.21	$9.10	$16.64	$0.00	$64.95
For apprentice rates see "Apprentice- LABORER"						
CARPENTER *CARPENTERS -ZONE 2 (Eastern Massachusetts)*	03/01/2022	$44.53	$8.68	$19.97	$0.00	$73.18
	09/01/2022	$45.18	$8.68	$19.97	$0.00	$73.83
	03/01/2023	$45.78	$8.68	$19.97	$0.00	$74.43

Apprentice - *CARPENTER - Zone 2 Eastern MA*

Effective Date - 03/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$22.27	$8.68	$1.73	$0.00	$32.68
2	60	$26.72	$8.68	$1.73	$0.00	$37.13
3	70	$31.17	$8.68	$14.78	$0.00	$54.63
4	75	$33.40	$8.68	$14.78	$0.00	$56.86
5	80	$35.62	$8.68	$16.51	$0.00	$60.81
6	80	$35.62	$8.68	$16.51	$0.00	$60.81
7	90	$40.08	$8.68	$18.24	$0.00	$67.00
8	90	$40.08	$8.68	$18.24	$0.00	$67.00

Effective Date - 09/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$22.59	$8.68	$1.73	$0.00	$33.00
2	60	$27.11	$8.68	$1.73	$0.00	$37.52
3	70	$31.63	$8.68	$14.78	$0.00	$55.09
4	75	$33.89	$8.68	$14.78	$0.00	$57.35
5	80	$36.14	$8.68	$16.51	$0.00	$61.33
6	80	$36.14	$8.68	$16.51	$0.00	$61.33
7	90	$40.66	$8.68	$18.24	$0.00	$67.58
8	90	$40.66	$8.68	$18.24	$0.00	$67.58

Notes:

% Indentured After 10/1/17; 45/45/55/55/70/70/80/80
Step 1&2 $30.45/ 3&4 $36.57/ 5&6 $56.36/ 7&8 $62.54

Apprentice to Journeyworker Ratio:1:5

CARPENTER WOOD FRAME *CARPENTERS-ZONE 3 (Wood Frame)*	04/01/2022	$23.66	$7.21	$4.80	$0.00	$35.67
	04/01/2023	$24.16	$7.21	$4.80	$0.00	$36.17
All Aspects of New Wood Frame Work						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *CARPENTER (Wood Frame) - Zone 3*

Effective Date - 04/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	$14.20	$7.21	$0.00	$0.00	$21.41
2	60	$14.20	$7.21	$0.00	$0.00	$21.41
3	65	$15.38	$7.21	$0.00	$0.00	$22.59
4	70	$16.56	$7.21	$0.00	$0.00	$23.77
5	75	$17.75	$7.21	$3.80	$0.00	$28.76
6	80	$18.93	$7.21	$3.80	$0.00	$29.94
7	85	$20.11	$7.21	$3.80	$0.00	$31.12
8	90	$21.29	$7.21	$3.80	$0.00	$32.30

Effective Date - 04/01/2023

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	$14.50	$7.21	$0.00	$0.00	$21.71
2	60	$14.50	$7.21	$0.00	$0.00	$21.71
3	65	$15.70	$7.21	$0.00	$0.00	$22.91
4	70	$16.91	$7.21	$0.00	$0.00	$24.12
5	75	$18.12	$7.21	$3.80	$0.00	$29.13
6	80	$19.33	$7.21	$3.80	$0.00	$30.34
7	85	$20.54	$7.21	$3.80	$0.00	$31.55
8	90	$21.74	$7.21	$3.80	$0.00	$32.75

Notes:

% Indentured After 10/1/17; 45/45/55/55/70/70/80/80
Step 1&2 $17.86/ 3&4 $20.22/ 5&6 $27.57/ 7&8 $29.94

Apprentice to Journeyworker Ratio:1:5

CEMENT MASONRY/PLASTERING *BRICKLAYERS LOCAL 3 (WORCESTER)*	01/01/2020	$47.14	$12.75	$22.41	$0.62	$82.92

Apprentice - *CEMENT MASONRY/PLASTERING - Worcester*

Effective Date - 01/01/2020

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$23.57	$12.75	$15.41	$0.00	$51.73
2	60	$28.28	$12.75	$17.41	$0.62	$59.06
3	65	$30.64	$12.75	$18.41	$0.62	$62.42
4	70	$33.00	$12.75	$19.41	$0.62	$65.78
5	75	$35.36	$12.75	$20.41	$0.62	$69.14
6	80	$37.71	$12.75	$21.41	$0.62	$72.49
7	90	$42.43	$12.75	$22.41	$0.62	$78.21

Notes:

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

Apprentice to Journeyworker Ratio:1:3

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
CHAIN SAW OPERATOR *LABORERS - ZONE 2*	06/01/2022	$36.56	$9.10	$16.64	$0.00	$62.30
	12/01/2022	$37.41	$9.10	$16.64	$0.00	$63.15
	06/01/2023	$38.31	$9.10	$16.64	$0.00	$64.05
	12/01/2023	$39.21	$9.10	$16.64	$0.00	$64.95
For apprentice rates see "Apprentice- LABORER"						
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES *OPERATING ENGINEERS LOCAL 4*	12/01/2021	$52.38	$14.00	$16.05	$0.00	$82.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
COMPRESSOR OPERATOR *OPERATING ENGINEERS LOCAL 4*	12/01/2021	$33.69	$14.00	$16.05	$0.00	$63.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DELEADER (BRIDGE) *PAINTERS LOCAL 35 - ZONE 2*	01/01/2022	$53.66	$8.65	$23.05	$0.00	$85.36
	07/01/2022	$54.86	$8.65	$23.05	$0.00	$86.56
	01/01/2023	$56.06	$8.65	$23.05	$0.00	$87.76
	07/01/2023	$57.26	$8.65	$23.05	$0.00	$88.96
	01/01/2024	$58.46	$8.65	$23.05	$0.00	$90.16
	07/01/2024	$59.66	$8.65	$23.05	$0.00	$91.36
	01/01/2025	$60.86	$8.65	$23.05	$0.00	$92.56

Apprentice - *PAINTER Local 35 - BRIDGES/TANKS*

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$26.83	$8.65	$0.00	$0.00	$35.48
2	55	$29.51	$8.65	$6.27	$0.00	$44.43
3	60	$32.20	$8.65	$6.84	$0.00	$47.69
4	65	$34.88	$8.65	$7.41	$0.00	$50.94
5	70	$37.56	$8.65	$19.63	$0.00	$65.84
6	75	$40.25	$8.65	$20.20	$0.00	$69.10
7	80	$42.93	$8.65	$20.77	$0.00	$72.35
8	90	$48.29	$8.65	$21.91	$0.00	$78.85

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$27.43	$8.65	$0.00	$0.00	$36.08
2	55	$30.17	$8.65	$6.27	$0.00	$45.09
3	60	$32.92	$8.65	$6.84	$0.00	$48.41
4	65	$35.66	$8.65	$7.41	$0.00	$51.72
5	70	$38.40	$8.65	$19.63	$0.00	$66.68
6	75	$41.15	$8.65	$20.20	$0.00	$70.00
7	80	$43.89	$8.65	$20.77	$0.00	$73.31
8	90	$49.37	$8.65	$21.91	$0.00	$79.93

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
DEMO: ADZEMAN *LABORERS - ZONE 2*	06/01/2022	$42.33	$9.10	$17.57	$0.00	$69.00
	12/01/2022	$43.33	$9.10	$17.57	$0.00	$70.00
	06/01/2023	$44.33	$9.10	$17.57	$0.00	$71.00
	12/01/2023	$45.58	$9.10	$17.57	$0.00	$72.25
For apprentice rates see "Apprentice- LABORER"						
DEMO: BACKHOE/LOADER/HAMMER OPERATOR *LABORERS - ZONE 2*	06/01/2022	$43.33	$9.10	$17.57	$0.00	$70.00
	12/01/2022	$44.33	$9.10	$17.57	$0.00	$71.00
	06/01/2023	$45.33	$9.10	$17.57	$0.00	$72.00
	12/01/2023	$46.58	$9.10	$17.57	$0.00	$73.25
For apprentice rates see "Apprentice- LABORER"						
DEMO: BURNERS *LABORERS - ZONE 2*	06/01/2022	$43.08	$9.10	$17.57	$0.00	$69.75
	12/01/2022	$44.08	$9.10	$17.57	$0.00	$70.75
	06/01/2023	$45.08	$9.10	$17.57	$0.00	$71.75
	12/01/2023	$46.33	$9.10	$17.57	$0.00	$73.00
For apprentice rates see "Apprentice- LABORER"						
DEMO: CONCRETE CUTTER/SAWYER *LABORERS - ZONE 2*	06/01/2022	$43.33	$9.10	$17.57	$0.00	$70.00
	12/01/2022	$44.33	$9.10	$17.57	$0.00	$71.00
	06/01/2023	$45.33	$9.10	$17.57	$0.00	$72.00
	12/01/2023	$46.58	$9.10	$17.57	$0.00	$73.25
For apprentice rates see "Apprentice- LABORER"						
DEMO: JACKHAMMER OPERATOR *LABORERS - ZONE 2*	06/01/2022	$43.08	$9.10	$17.57	$0.00	$69.75
	12/01/2022	$44.08	$9.10	$17.57	$0.00	$70.75
	06/01/2023	$45.08	$9.10	$17.57	$0.00	$71.75
	12/01/2023	$46.33	$9.10	$17.57	$0.00	$73.00
For apprentice rates see "Apprentice- LABORER"						
DEMO: WRECKING LABORER *LABORERS - ZONE 2*	06/01/2022	$42.33	$9.10	$17.57	$0.00	$69.00
	12/01/2022	$43.33	$9.10	$17.57	$0.00	$70.00
	06/01/2023	$44.33	$9.10	$17.57	$0.00	$71.00
	12/01/2023	$45.58	$9.10	$17.57	$0.00	$72.25
For apprentice rates see "Apprentice- LABORER"						
DIRECTIONAL DRILL MACHINE OPERATOR *OPERATING ENGINEERS LOCAL 4*	12/01/2021	$50.83	$14.00	$16.05	$0.00	$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
DIVER *PILE DRIVER LOCAL 56 (ZONE 2)*	08/01/2020	$68.70	$9.40	$23.12	$0.00	$101.22
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER *PILE DRIVER LOCAL 56 (ZONE 2)*	08/01/2020	$49.07	$9.40	$23.12	$0.00	$81.59
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER TENDER (EFFLUENT) *PILE DRIVER LOCAL 56 (ZONE 2)*	08/01/2020	$73.60	$9.40	$23.12	$0.00	$106.12
For apprentice rates see "Apprentice- PILE DRIVER"						
DIVER/SLURRY (EFFLUENT) *PILE DRIVER LOCAL 56 (ZONE 2)*	08/01/2020	$103.05	$9.40	$23.12	$0.00	$135.57
For apprentice rates see "Apprentice- PILE DRIVER"						
DRAWBRIDGE OPERATOR (Construction) *DRAWBRIDGE - SEIU LOCAL 888*	07/01/2020	$26.77	$6.67	$3.93	$0.16	$37.53
ELECTRICIAN *ELECTRICIANS LOCAL 96*	09/05/2021	$45.01	$11.57	$17.42	$0.00	$74.00
	09/04/2022	$45.59	$12.20	$17.50	$0.00	$75.29

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *ELECTRICIAN - Local 96*

Effective Date - 09/05/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	$18.00	$11.57	$0.54	$0.00	$30.11
2	43	$19.35	$11.57	$0.58	$0.00	$31.50
3	48	$21.60	$11.57	$14.15	$0.00	$47.32
4	55	$24.76	$11.57	$14.58	$0.00	$50.91
5	65	$29.26	$11.57	$15.22	$0.00	$56.05
6	80	$36.01	$11.57	$16.16	$0.00	$63.74

Effective Date - 09/04/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	$18.24	$12.20	$0.55	$0.00	$30.99
2	43	$19.60	$12.20	$0.59	$0.00	$32.39
3	48	$21.88	$12.20	$14.18	$0.00	$48.26
4	55	$25.07	$12.20	$14.63	$0.00	$51.90
5	65	$29.63	$12.20	$15.27	$0.00	$57.10
6	80	$36.47	$12.20	$16.22	$0.00	$64.89

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

Apprentice to Journeyworker Ratio:2:3***

ELEVATOR CONSTRUCTOR
ELEVATOR CONSTRUCTORS LOCAL 41
01/01/2022 $58.62 $16.03 $20.21 $0.00 $94.86

Apprentice - *ELEVATOR CONSTRUCTOR - Local 41*

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$29.31	$16.03	$0.00	$0.00	$45.34
2	55	$32.24	$16.03	$20.21	$0.00	$68.48
3	65	$38.10	$16.03	$20.21	$0.00	$74.34
4	70	$41.03	$16.03	$20.21	$0.00	$77.27
5	80	$46.90	$16.03	$20.21	$0.00	$83.14

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

Apprentice to Journeyworker Ratio:1:1

ELEVATOR CONSTRUCTOR HELPER
ELEVATOR CONSTRUCTORS LOCAL 41
01/01/2022 $41.03 $16.03 $20.21 $0.00 $77.27

For apprentice rates see "Apprentice - ELEVATOR CONSTRUCTOR"

FENCE & GUARD RAIL ERECTOR (HEAVY & HIGHWAY)
LABORERS - ZONE 2 (HEAVY & HIGHWAY)
12/01/2021 $35.66 $9.10 $16.64 $0.00 $61.40

For apprentice rates see "Apprentice- LABORER (Heavy and Highway)

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
FIELD ENG.INST.PERSON-BLDG,SITE,HVY/HWY *OPERATING ENGINEERS LOCAL 4* For apprentice rates see "Apprentice- OPERATING ENGINEERS"	05/01/2022	$47.18	$14.00	$16.05	$0.00	$77.23
FIELD ENG.PARTY CHIEF-BLDG,SITE,HVY/HWY *OPERATING ENGINEERS LOCAL 4* For apprentice rates see "Apprentice- OPERATING ENGINEERS"	05/01/2022	$48.72	$14.00	$16.05	$0.00	$78.77
FIELD ENG.ROD PERSON-BLDG,SITE,HVY/HWY *OPERATING ENGINEERS LOCAL 4* For apprentice rates see "Apprentice- OPERATING ENGINEERS"	05/01/2022	$23.33	$14.00	$16.05	$0.00	$53.38
FIRE ALARM INSTALLER *ELECTRICIANS LOCAL 96* For apprentice rates see "Apprentice- ELECTRICIAN"	09/05/2021	$45.01	$11.57	$17.42	$0.00	$74.00
	09/04/2022	$45.59	$12.20	$17.50	$0.00	$75.29
FIRE ALARM REPAIR / MAINT/COMMISSIONING *ELECTRICIANS LOCAL 96* For apprentice rates see "Apprentice- ELECTRICIAN"	09/05/2021	$45.01	$11.57	$17.42	$0.00	$74.00
	09/04/2022	$45.59	$12.20	$17.50	$0.00	$75.29
FIREMAN (ASST. ENGINEER) *OPERATING ENGINEERS LOCAL 4* For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2021	$41.76	$14.00	$16.05	$0.00	$71.81
FLAGGER & SIGNALER (HEAVY & HIGHWAY) *LABORERS - ZONE 2 (HEAVY & HIGHWAY)* For apprentice rates see "Apprentice- LABORER (Heavy and Highway)	12/01/2021	$24.50	$9.10	$16.64	$0.00	$50.24
FLOORCOVERER *FLOORCOVERERS LOCAL 2168 ZONE II*	03/01/2022	$47.62	$8.68	$20.27	$0.00	$76.57

Apprentice - *FLOORCOVERER - Local 2168 Zone II*

Effective Date - 03/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$23.81	$8.68	$1.79	$0.00	$34.28
2	55	$26.19	$8.68	$1.79	$0.00	$36.66
3	60	$28.57	$8.68	$14.90	$0.00	$52.15
4	65	$30.95	$8.68	$14.90	$0.00	$54.53
5	70	$33.33	$8.68	$16.69	$0.00	$58.70
6	75	$35.72	$8.68	$16.69	$0.00	$61.09
7	80	$38.10	$8.68	$18.48	$0.00	$65.26
8	85	$40.48	$8.68	$18.48	$0.00	$67.64

Notes: Steps are 750 hrs.
% After 10/1/17; 45/45/55/55/70/70/80/80 (1500hr Steps)
Step 1&2 $31.90/ 3&4 $38.39/ 5&6 $58.70/ 7&8 $65.26

Apprentice to Journeyworker Ratio:1:1

FORK LIFT/CHERRY PICKER *OPERATING ENGINEERS LOCAL 4* For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2021	$51.38	$14.00	$16.05	$0.00	$81.43
GENERATOR/LIGHTING PLANT/HEATERS *OPERATING ENGINEERS LOCAL 4* For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2021	$33.69	$14.00	$16.05	$0.00	$63.74

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
GLAZIER (GLASS PLANK/AIR BARRIER/INTERIOR SYSTEMS) *GLAZIERS LOCAL 35 (ZONE 2)*	01/01/2022	$43.16	$8.65	$23.05	$0.00	$74.86
	07/01/2022	$44.36	$8.65	$23.05	$0.00	$76.06
	01/01/2023	$45.56	$8.65	$23.05	$0.00	$77.26
	07/01/2023	$46.76	$8.65	$23.05	$0.00	$78.46
	01/01/2024	$47.96	$8.65	$23.05	$0.00	$79.66
	07/01/2024	$49.16	$8.65	$23.05	$0.00	$80.86
	01/01/2025	$50.36	$8.65	$23.05	$0.00	$82.06

Apprentice - *GLAZIER - Local 35 Zone 2*

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$21.58	$8.65	$0.00	$0.00	$30.23
2	55	$23.74	$8.65	$6.27	$0.00	$38.66
3	60	$25.90	$8.65	$6.84	$0.00	$41.39
4	65	$28.05	$8.65	$7.41	$0.00	$44.11
5	70	$30.21	$8.65	$19.63	$0.00	$58.49
6	75	$32.37	$8.65	$20.20	$0.00	$61.22
7	80	$34.53	$8.65	$20.77	$0.00	$63.95
8	90	$38.84	$8.65	$21.91	$0.00	$69.40

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$22.18	$8.65	$0.00	$0.00	$30.83
2	55	$24.40	$8.65	$6.27	$0.00	$39.32
3	60	$26.62	$8.65	$6.84	$0.00	$42.11
4	65	$28.83	$8.65	$7.41	$0.00	$44.89
5	70	$31.05	$8.65	$19.63	$0.00	$59.33
6	75	$33.27	$8.65	$20.20	$0.00	$62.12
7	80	$35.49	$8.65	$20.77	$0.00	$64.91
8	90	$39.92	$8.65	$21.91	$0.00	$70.48

Notes:

Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

HOISTING ENGINEER/CRANES/GRADALLS *OPERATING ENGINEERS LOCAL 4*	12/01/2021	$51.38	$14.00	$16.05	$0.00	$81.43

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *OPERATING ENGINEERS - Local 4*

Effective Date - 12/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	$28.26	$14.00	$0.00	$0.00	$42.26
2	60	$30.83	$14.00	$16.05	$0.00	$60.88
3	65	$33.40	$14.00	$16.05	$0.00	$63.45
4	70	$35.97	$14.00	$16.05	$0.00	$66.02
5	75	$38.54	$14.00	$16.05	$0.00	$68.59
6	80	$41.10	$14.00	$16.05	$0.00	$71.15
7	85	$43.67	$14.00	$16.05	$0.00	$73.72
8	90	$46.24	$14.00	$16.05	$0.00	$76.29

Notes:

Apprentice to Journeyworker Ratio:1:6

HVAC (DUCTWORK) *SHEETMETAL WORKERS LOCAL 63*	01/01/2022	$39.29	$10.64	$17.33	$2.02	$69.28
For apprentice rates see "Apprentice- SHEET METAL WORKER"						
HVAC (ELECTRICAL CONTROLS) *ELECTRICIANS LOCAL 96*	09/05/2021	$45.01	$11.57	$17.42	$0.00	$74.00
	09/04/2022	$45.59	$12.20	$17.50	$0.00	$75.29
For apprentice rates see "Apprentice- ELECTRICIAN"						
HVAC (TESTING AND BALANCING - AIR) *SHEETMETAL WORKERS LOCAL 63*	01/01/2022	$39.29	$10.64	$17.33	$2.02	$69.28
For apprentice rates see "Apprentice- SHEET METAL WORKER"						
HVAC (TESTING AND BALANCING -WATER) *PLUMBERS LOCAL 4*	03/01/2022	$49.50	$9.80	$16.12	$0.00	$75.42
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HVAC MECHANIC *PLUMBERS LOCAL 4*	03/01/2022	$49.50	$9.80	$16.12	$0.00	$75.42
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
HYDRAULIC DRILLS *LABORERS - ZONE 2*	06/01/2022	$37.06	$9.10	$16.64	$0.00	$62.80
	12/01/2022	$37.91	$9.10	$16.64	$0.00	$63.65
	06/01/2023	$38.81	$9.10	$16.64	$0.00	$64.55
	12/01/2023	$39.71	$9.10	$16.64	$0.00	$65.45
For apprentice rates see "Apprentice- LABORER"						
HYDRAULIC DRILLS (HEAVY & HIGHWAY) *LABORERS - ZONE 2 (HEAVY & HIGHWAY)*	12/01/2021	$36.16	$9.10	$16.64	$0.00	$61.90
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)						
INSULATOR (PIPES & TANKS) *HEAT & FROST INSULATORS LOCAL 6 (WORCESTER)*	09/01/2021	$46.50	$13.80	$17.14	$0.00	$77.44
	09/01/2022	$48.95	$13.80	$17.14	$0.00	$79.89

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

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

Effective Date - 09/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$23.25	$13.80	$12.42	$0.00	$49.47
2	60	$27.90	$13.80	$13.36	$0.00	$55.06
3	70	$32.55	$13.80	$14.31	$0.00	$60.66
4	80	$37.20	$13.80	$15.25	$0.00	$66.25

Effective Date - 09/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$24.48	$13.80	$12.42	$0.00	$50.70
2	60	$29.37	$13.80	$13.36	$0.00	$56.53
3	70	$34.27	$13.80	$14.31	$0.00	$62.38
4	80	$39.16	$13.80	$15.25	$0.00	$68.21

Notes:
Steps are 1 year

Apprentice to Journeyworker Ratio:1:4

IRONWORKER/WELDER *IRONWORKERS LOCAL 7 (WORCESTER AREA)*	03/16/2022	$50.30	$8.20	$26.50	$0.00	$85.00

Apprentice - *IRONWORKER - Local 7 Worcester*

Effective Date - 03/16/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	$30.18	$8.20	$26.50	$0.00	$64.88
2	70	$35.21	$8.20	$26.50	$0.00	$69.91
3	75	$37.73	$8.20	$26.50	$0.00	$72.43
4	80	$40.24	$8.20	$26.50	$0.00	$74.94
5	85	$42.76	$8.20	$26.50	$0.00	$77.46
6	90	$45.27	$8.20	$26.50	$0.00	$79.97

Notes:
Structural 1:6; Ornamental 1:4

Apprentice to Journeyworker Ratio:

JACKHAMMER & PAVING BREAKER OPERATOR *LABORERS - ZONE 2*	06/01/2022	$36.56	$9.10	$16.64	$0.00	$62.30
	12/01/2022	$37.41	$9.10	$16.64	$0.00	$63.15
	06/01/2023	$38.31	$9.10	$16.64	$0.00	$64.05
	12/01/2023	$39.21	$9.10	$16.64	$0.00	$64.95
For apprentice rates see "Apprentice- LABORER"						
LABORER *LABORERS - ZONE 2*	06/01/2022	$36.31	$9.10	$16.64	$0.00	$62.05
	12/01/2022	$37.16	$9.10	$16.64	$0.00	$62.90
	06/01/2023	$38.06	$9.10	$16.64	$0.00	$63.80
	12/01/2023	$38.96	$9.10	$16.64	$0.00	$64.70

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *LABORER - Zone 2*

Effective Date - 06/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	$21.79	$9.10	$16.64	$0.00	$47.53
2	70	$25.42	$9.10	$16.64	$0.00	$51.16
3	80	$29.05	$9.10	$16.64	$0.00	$54.79
4	90	$32.68	$9.10	$16.64	$0.00	$58.42

Effective Date - 12/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	$22.30	$9.10	$16.64	$0.00	$48.04
2	70	$26.01	$9.10	$16.64	$0.00	$51.75
3	80	$29.73	$9.10	$16.64	$0.00	$55.47
4	90	$33.44	$9.10	$16.64	$0.00	$59.18

Notes:

Apprentice to Journeyworker Ratio:1:5

LABORER (HEAVY & HIGHWAY) *LABORERS - ZONE 2 (HEAVY & HIGHWAY)*	12/01/2021	$35.41	$9.10	$16.64	$0.00	$61.15

Apprentice - *LABORER (Heavy & Highway) - Zone 2*

Effective Date - 12/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	60	$21.25	$9.10	$16.64	$0.00	$46.99
2	70	$24.79	$9.10	$16.64	$0.00	$50.53
3	80	$28.33	$9.10	$16.64	$0.00	$54.07
4	90	$31.87	$9.10	$16.64	$0.00	$57.61

Notes:

Apprentice to Journeyworker Ratio:1:5

LABORER: CARPENTER TENDER *LABORERS - ZONE 2*	06/01/2022	$36.31	$9.10	$16.64	$0.00	$62.05
	12/01/2022	$37.16	$9.10	$16.64	$0.00	$62.90
	06/01/2023	$38.06	$9.10	$16.64	$0.00	$63.80
	12/01/2023	$38.96	$9.10	$16.64	$0.00	$64.70

For apprentice rates see "Apprentice- LABORER"

LABORER: CEMENT FINISHER TENDER *LABORERS - ZONE 2*	06/01/2022	$36.31	$9.10	$16.64	$0.00	$62.05
	12/01/2022	$37.16	$9.10	$16.64	$0.00	$62.90
	06/01/2023	$38.06	$9.10	$16.64	$0.00	$63.80
	12/01/2023	$38.96	$9.10	$16.64	$0.00	$64.70

For apprentice rates see "Apprentice- LABORER"

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
LABORER: HAZARDOUS WASTE/ASBESTOS REMOVER *LABORERS - ZONE 2*	06/01/2022	$36.40	$9.10	$16.70	$0.00	$62.20
	12/01/2022	$37.25	$9.10	$16.70	$0.00	$63.05
	06/01/2023	$38.15	$9.10	$16.70	$0.00	$63.95
	12/01/2023	$39.05	$9.10	$16.70	$0.00	$64.85
For apprentice rates see "Apprentice- LABORER"						
LABORER: MASON TENDER *LABORERS - ZONE 2*	06/01/2022	$36.56	$9.10	$16.64	$0.00	$62.30
	12/01/2022	$37.41	$9.10	$16.64	$0.00	$63.15
	06/01/2023	$38.31	$9.10	$16.64	$0.00	$64.05
	12/01/2023	$39.21	$9.10	$16.64	$0.00	$64.95
For apprentice rates see "Apprentice- LABORER"						
LABORER: MASON TENDER (HEAVY & HIGHWAY) *LABORERS - ZONE 2 (HEAVY & HIGHWAY)*	12/01/2021	$35.66	$9.10	$16.64	$0.00	$61.40
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
LABORER: MULTI-TRADE TENDER *LABORERS - ZONE 2*	06/01/2022	$36.31	$9.10	$16.64	$0.00	$62.05
	12/01/2022	$37.16	$9.10	$16.64	$0.00	$62.90
	06/01/2023	$38.06	$9.10	$16.64	$0.00	$63.80
	12/01/2023	$38.96	$9.10	$16.64	$0.00	$64.70
For apprentice rates see "Apprentice- LABORER"						
LABORER: TREE REMOVER *LABORERS - ZONE 2*	06/01/2022	$36.31	$9.10	$16.64	$0.00	$62.05
	12/01/2022	$37.16	$9.10	$16.64	$0.00	$62.90
	06/01/2023	$38.06	$9.10	$16.64	$0.00	$63.80
	12/01/2023	$38.96	$9.10	$16.64	$0.00	$64.70
This classification applies to the removal of standing trees, and the trimming and removal of branches and limbs when related to public works construction or site clearance incidental to construction . For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR *LABORERS - ZONE 2*	06/01/2022	$36.56	$9.10	$16.64	$0.00	$62.30
	12/01/2022	$37.41	$9.10	$16.64	$0.00	$63.15
	06/01/2023	$38.31	$9.10	$16.64	$0.00	$64.05
	12/01/2023	$39.21	$9.10	$16.64	$0.00	$64.95
For apprentice rates see "Apprentice- LABORER"						
LASER BEAM OPERATOR (HEAVY & HIGHWAY) *LABORERS - ZONE 2 (HEAVY & HIGHWAY)*	12/01/2021	$35.66	$9.10	$16.64	$0.00	$61.40
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
MARBLE & TILE FINISHERS *BRICKLAYERS LOCAL 3 - MARBLE & TILE*	02/01/2022	$43.69	$11.39	$20.37	$0.00	$75.45

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

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$21.85	$11.39	$20.37	$0.00	$53.61
2	60	$26.21	$11.39	$20.37	$0.00	$57.97
3	70	$30.58	$11.39	$20.37	$0.00	$62.34
4	80	$34.95	$11.39	$20.37	$0.00	$66.71
5	90	$39.32	$11.39	$20.37	$0.00	$71.08

Notes:

Apprentice to Journeyworker Ratio:1:3

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
MARBLE MASONS,TILELAYERS & TERRAZZO MECH *BRICKLAYERS LOCAL 3 - MARBLE & TILE*	02/01/2022	$57.17	$11.39	$22.31	$0.00	$90.87

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

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$28.59	$11.39	$22.31	$0.00	$62.29
2	60	$34.30	$11.39	$22.31	$0.00	$68.00
3	70	$40.02	$11.39	$22.31	$0.00	$73.72
4	80	$45.74	$11.39	$22.31	$0.00	$79.44
5	90	$51.45	$11.39	$22.31	$0.00	$85.15

Notes:

Apprentice to Journeyworker Ratio:1:5

MECH. SWEEPER OPERATOR (ON CONST. SITES) *OPERATING ENGINEERS LOCAL 4*	12/01/2021	$50.83	$14.00	$16.05	$0.00	$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
MECHANICS MAINTENANCE *OPERATING ENGINEERS LOCAL 4*	12/01/2021	$50.83	$14.00	$16.05	$0.00	$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
MILLWRIGHT (Zone 3) *MILLWRIGHTS LOCAL 1121 - Zone 3*	01/03/2022	$38.91	$8.58	$21.57	$0.00	$69.06
	01/02/2023	$40.16	$8.58	$21.57	$0.00	$70.31

Apprentice - *MILLWRIGHT - Local 1121 Zone 3*

Effective Date - 01/03/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	$21.40	$8.58	$5.72	$0.00	$35.70
2	65	$25.29	$8.58	$17.93	$0.00	$51.80
3	75	$29.18	$8.58	$18.98	$0.00	$56.74
4	85	$33.07	$8.58	$20.01	$0.00	$61.66

Effective Date - 01/02/2023

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	55	$22.09	$8.58	$5.72	$0.00	$36.39
2	65	$26.10	$8.58	$17.93	$0.00	$52.61
3	75	$30.12	$8.58	$18.98	$0.00	$57.68
4	85	$34.14	$8.58	$20.01	$0.00	$62.73

Notes: Step 1&2 Appr. indentured after 1/6/2020 receive no pension, but do receive annuity. (Step 1 $5.72, Step 2 $6.66)
Steps are 2,000 hours

Apprentice to Journeyworker Ratio:1:4

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
MORTAR MIXER *LABORERS - ZONE 2*	06/01/2022	$36.56	$9.10	$16.64	$0.00	$62.30
	12/01/2022	$37.41	$9.10	$16.64	$0.00	$63.15
	06/01/2023	$38.31	$9.10	$16.64	$0.00	$64.05
	12/01/2023	$39.21	$9.10	$16.64	$0.00	$64.95
For apprentice rates see "Apprentice- LABORER"						
OILER (OTHER THAN TRUCK CRANES,GRADALLS) *OPERATING ENGINEERS LOCAL 4*	12/01/2021	$23.48	$14.00	$16.05	$0.00	$53.53
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
OILER (TRUCK CRANES, GRADALLS) *OPERATING ENGINEERS LOCAL 4*	12/01/2021	$28.44	$14.00	$16.05	$0.00	$58.49
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
OTHER POWER DRIVEN EQUIPMENT - CLASS II *OPERATING ENGINEERS LOCAL 4*	12/01/2021	$50.83	$14.00	$16.05	$0.00	$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PAINTER (BRIDGES/TANKS) *PAINTERS LOCAL 35 - ZONE 2*	01/01/2022	$53.66	$8.65	$23.05	$0.00	$85.36
	07/01/2022	$54.86	$8.65	$23.05	$0.00	$86.56
	01/01/2023	$56.06	$8.65	$23.05	$0.00	$87.76
	07/01/2023	$57.26	$8.65	$23.05	$0.00	$88.96
	01/01/2024	$58.46	$8.65	$23.05	$0.00	$90.16
	07/01/2024	$59.66	$8.65	$23.05	$0.00	$91.36
	01/01/2025	$60.86	$8.65	$23.05	$0.00	$92.56

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *PAINTER Local 35 - BRIDGES/TANKS*

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$26.83	$8.65	$0.00	$0.00	$35.48
2	55	$29.51	$8.65	$6.27	$0.00	$44.43
3	60	$32.20	$8.65	$6.84	$0.00	$47.69
4	65	$34.88	$8.65	$7.41	$0.00	$50.94
5	70	$37.56	$8.65	$19.63	$0.00	$65.84
6	75	$40.25	$8.65	$20.20	$0.00	$69.10
7	80	$42.93	$8.65	$20.77	$0.00	$72.35
8	90	$48.29	$8.65	$21.91	$0.00	$78.85

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$27.43	$8.65	$0.00	$0.00	$36.08
2	55	$30.17	$8.65	$6.27	$0.00	$45.09
3	60	$32.92	$8.65	$6.84	$0.00	$48.41
4	65	$35.66	$8.65	$7.41	$0.00	$51.72
5	70	$38.40	$8.65	$19.63	$0.00	$66.68
6	75	$41.15	$8.65	$20.20	$0.00	$70.00
7	80	$43.89	$8.65	$20.77	$0.00	$73.31
8	90	$49.37	$8.65	$21.91	$0.00	$79.93

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, NEW) * * If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used.*PAINTERS LOCAL 35 - ZONE 2*	01/01/2022	$44.56	$8.65	$23.05	$0.00	$76.26
	07/01/2022	$45.76	$8.65	$23.05	$0.00	$77.46
	01/01/2023	$46.96	$8.65	$23.05	$0.00	$78.66
	07/01/2023	$48.16	$8.65	$23.05	$0.00	$79.86
	01/01/2024	$49.36	$8.65	$23.05	$0.00	$81.06
	07/01/2024	$50.56	$8.65	$23.05	$0.00	$82.26
	01/01/2025	$51.76	$8.65	$23.05	$0.00	$83.46

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

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

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$22.28	$8.65	$0.00	$0.00	$30.93
2	55	$24.51	$8.65	$6.27	$0.00	$39.43
3	60	$26.74	$8.65	$6.84	$0.00	$42.23
4	65	$28.96	$8.65	$7.41	$0.00	$45.02
5	70	$31.19	$8.65	$19.63	$0.00	$59.47
6	75	$33.42	$8.65	$20.20	$0.00	$62.27
7	80	$35.65	$8.65	$20.77	$0.00	$65.07
8	90	$40.10	$8.65	$21.91	$0.00	$70.66

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$22.88	$8.65	$0.00	$0.00	$31.53
2	55	$25.17	$8.65	$6.27	$0.00	$40.09
3	60	$27.46	$8.65	$6.84	$0.00	$42.95
4	65	$29.74	$8.65	$7.41	$0.00	$45.80
5	70	$32.03	$8.65	$19.63	$0.00	$60.31
6	75	$34.32	$8.65	$20.20	$0.00	$63.17
7	80	$36.61	$8.65	$20.77	$0.00	$66.03
8	90	$41.18	$8.65	$21.91	$0.00	$71.74

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER (SPRAY OR SANDBLAST, REPAINT) *PAINTERS LOCAL 35 - ZONE 2*	01/01/2022	$42.62	$8.65	$23.05	$0.00	$74.32
	07/01/2022	$43.82	$8.65	$23.05	$0.00	$75.52
	01/01/2023	$45.02	$8.65	$23.05	$0.00	$76.72
	07/01/2023	$46.22	$8.65	$23.05	$0.00	$77.92
	01/01/2024	$47.42	$8.65	$23.05	$0.00	$79.12
	07/01/2024	$48.62	$8.65	$23.05	$0.00	$80.32
	01/01/2025	$49.82	$8.65	$23.05	$0.00	$81.52

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

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

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$21.31	$8.65	$0.00	$0.00	$29.96
2	55	$23.44	$8.65	$6.27	$0.00	$38.36
3	60	$25.57	$8.65	$6.84	$0.00	$41.06
4	65	$27.70	$8.65	$7.41	$0.00	$43.76
5	70	$29.83	$8.65	$19.63	$0.00	$58.11
6	75	$31.97	$8.65	$20.20	$0.00	$60.82
7	80	$34.10	$8.65	$20.77	$0.00	$63.52
8	90	$38.36	$8.65	$21.91	$0.00	$68.92

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$21.91	$8.65	$0.00	$0.00	$30.56
2	55	$24.10	$8.65	$6.27	$0.00	$39.02
3	60	$26.29	$8.65	$6.84	$0.00	$41.78
4	65	$28.48	$8.65	$7.41	$0.00	$44.54
5	70	$30.67	$8.65	$19.63	$0.00	$58.95
6	75	$32.87	$8.65	$20.20	$0.00	$61.72
7	80	$35.06	$8.65	$20.77	$0.00	$64.48
8	90	$39.44	$8.65	$21.91	$0.00	$70.00

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER / TAPER (BRUSH, NEW) *	01/01/2022	$43.16	$8.65	$23.05	$0.00	$74.86
* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used.*PAINTERS LOCAL 35 - ZONE 2*	07/01/2022	$44.36	$8.65	$23.05	$0.00	$76.06
	01/01/2023	$45.56	$8.65	$23.05	$0.00	$77.26
	07/01/2023	$46.76	$8.65	$23.05	$0.00	$78.46
	01/01/2024	$47.96	$8.65	$23.05	$0.00	$79.66
	07/01/2024	$49.16	$8.65	$23.05	$0.00	$80.86
	01/01/2025	$50.36	$8.65	$23.05	$0.00	$82.06

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

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

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$21.58	$8.65	$0.00	$0.00	$30.23
2	55	$23.74	$8.65	$6.27	$0.00	$38.66
3	60	$25.90	$8.65	$6.84	$0.00	$41.39
4	65	$28.05	$8.65	$7.41	$0.00	$44.11
5	70	$30.21	$8.65	$19.63	$0.00	$58.49
6	75	$32.37	$8.65	$20.20	$0.00	$61.22
7	80	$34.53	$8.65	$20.77	$0.00	$63.95
8	90	$38.84	$8.65	$21.91	$0.00	$69.40

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$22.18	$8.65	$0.00	$0.00	$30.83
2	55	$24.40	$8.65	$6.27	$0.00	$39.32
3	60	$26.62	$8.65	$6.84	$0.00	$42.11
4	65	$28.83	$8.65	$7.41	$0.00	$44.89
5	70	$31.05	$8.65	$19.63	$0.00	$59.33
6	75	$33.27	$8.65	$20.20	$0.00	$62.12
7	80	$35.49	$8.65	$20.77	$0.00	$64.91
8	90	$39.92	$8.65	$21.91	$0.00	$70.48

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER / TAPER (BRUSH, REPAINT) *PAINTERS LOCAL 35 - ZONE 2*	01/01/2022	$41.22	$8.65	$23.05	$0.00	$72.92
	07/01/2022	$42.42	$8.65	$23.05	$0.00	$74.12
	01/01/2023	$43.62	$8.65	$23.05	$0.00	$75.32
	07/01/2023	$44.82	$8.65	$23.05	$0.00	$76.52
	01/01/2024	$46.02	$8.65	$23.05	$0.00	$77.72
	07/01/2024	$47.22	$8.65	$23.05	$0.00	$78.92
	01/01/2025	$48.42	$8.65	$23.05	$0.00	$80.12

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

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

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$20.61	$8.65	$0.00	$0.00	$29.26
2	55	$22.67	$8.65	$6.27	$0.00	$37.59
3	60	$24.73	$8.65	$6.84	$0.00	$40.22
4	65	$26.79	$8.65	$7.41	$0.00	$42.85
5	70	$28.85	$8.65	$19.63	$0.00	$57.13
6	75	$30.92	$8.65	$20.20	$0.00	$59.77
7	80	$32.98	$8.65	$20.77	$0.00	$62.40
8	90	$37.10	$8.65	$21.91	$0.00	$67.66

Effective Date - 07/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$21.21	$8.65	$0.00	$0.00	$29.86
2	55	$23.33	$8.65	$6.27	$0.00	$38.25
3	60	$25.45	$8.65	$6.84	$0.00	$40.94
4	65	$27.57	$8.65	$7.41	$0.00	$43.63
5	70	$29.69	$8.65	$19.63	$0.00	$57.97
6	75	$31.82	$8.65	$20.20	$0.00	$60.67
7	80	$33.94	$8.65	$20.77	$0.00	$63.36
8	90	$38.18	$8.65	$21.91	$0.00	$68.74

Notes:
Steps are 750 hrs.

Apprentice to Journeyworker Ratio:1:1

PAINTER TRAFFIC MARKINGS (HEAVY/HIGHWAY) *LABORERS - ZONE 2 (HEAVY & HIGHWAY)* For apprentice rates see "Apprentice- LABORER (Heavy and Highway)	12/01/2021	$35.41	$9.10	$16.64	$0.00	$61.15
PANEL & PICKUP TRUCKS DRIVER *TEAMSTERS JOINT COUNCIL NO. 10 ZONE B*	12/01/2021	$35.78	$13.41	$16.01	$0.00	$65.20
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK) *PILE DRIVER LOCAL 56 (ZONE 2)* For apprentice rates see "Apprentice- PILE DRIVER"	08/01/2020	$46.11	$9.40	$23.12	$0.00	$78.63
PILE DRIVER *PILE DRIVER LOCAL 56 (ZONE 2)*	08/01/2020	$46.11	$9.40	$23.12	$0.00	$78.63

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *PILE DRIVER - Local 56 Zone 2*

Effective Date - 08/01/2020

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

Notes: Apprentice wages shall be no less than the following Steps;
(Same as set in Zone 1)
1$57.06/2$61.96/3$66.87/4$69.32/5$71.78/6$71.78/7$76.68/8$76.68

Apprentice to Journeyworker Ratio:1:5

PIPELAYER *LABORERS - ZONE 2*	06/01/2022	$36.56	$9.10	$16.64	$0.00	$62.30
	12/01/2022	$37.41	$9.10	$16.64	$0.00	$63.15
	06/01/2023	$38.31	$9.10	$16.64	$0.00	$64.05
	12/01/2023	$39.21	$9.10	$16.64	$0.00	$64.95
For apprentice rates see "Apprentice- LABORER"						
PIPELAYER (HEAVY & HIGHWAY) *LABORERS - ZONE 2 (HEAVY & HIGHWAY)*	12/01/2021	$35.66	$9.10	$16.64	$0.00	$61.40
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)						
PLUMBER & PIPEFITTER *PLUMBERS LOCAL 4*	03/01/2022	$49.50	$9.80	$16.62	$0.00	$75.92

Apprentice - *PLUMBER/PIPEFITTER - Local 4*

Effective Date - 03/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	40	$19.80	$9.80	$0.00	$0.00	$29.60
2	50	$24.75	$9.80	$0.00	$0.00	$34.55
3	60	$29.70	$9.80	$0.00	$0.00	$39.50
4	70	$34.65	$9.80	$6.41	$0.00	$50.86
5	80	$39.60	$9.80	$6.41	$0.00	$55.81

Notes:
Steps - 2000 hrs; Step 4 w/lic 75%, Step 5 w/lic 85%
Step 4 w/lic $52.59, Step 5 w/lic $57.44

Apprentice to Journeyworker Ratio:1:3

PNEUMATIC CONTROLS (TEMP.) *PLUMBERS LOCAL 4*	03/01/2022	$49.50	$9.80	$16.12	$0.00	$75.42
For apprentice rates see "Apprentice- PIPEFITTER" or "PLUMBER/PIPEFITTER"						
PNEUMATIC DRILL/TOOL OPERATOR *LABORERS - ZONE 2*	06/01/2022	$36.56	$9.10	$16.64	$0.00	$62.30
	12/01/2022	$37.41	$9.10	$16.64	$0.00	$63.15
	06/01/2023	$38.31	$9.10	$16.64	$0.00	$64.05
	12/01/2023	$39.21	$9.10	$16.64	$0.00	$64.95
For apprentice rates see "Apprentice- LABORER"						
PNEUMATIC DRILL/TOOL OPERATOR (HEAVY & HIGHWAY) *LABORERS - ZONE 2 (HEAVY & HIGHWAY)*	12/01/2021	$35.66	$9.10	$16.64	$0.00	$61.40
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
POWDERMAN & BLASTER *LABORERS - ZONE 2*	06/01/2022	$37.31	$9.10	$16.64	$0.00	$63.05
	12/01/2022	$38.16	$9.10	$16.64	$0.00	$63.90
	06/01/2023	$39.06	$9.10	$16.64	$0.00	$64.80
	12/01/2023	$39.96	$9.10	$16.64	$0.00	$65.70
For apprentice rates see "Apprentice- LABORER"						
POWDERMAN & BLASTER (HEAVY & HIGHWAY) *LABORERS - ZONE 2 (HEAVY & HIGHWAY)*	12/01/2021	$36.41	$9.10	$16.64	$0.00	$62.15
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
POWER SHOVEL/DERRICK/TRENCHING MACHINE *OPERATING ENGINEERS LOCAL 4*	12/01/2021	$51.38	$14.00	$16.05	$0.00	$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (CONCRETE) *OPERATING ENGINEERS LOCAL 4*	12/01/2021	$51.38	$14.00	$16.05	$0.00	$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
PUMP OPERATOR (DEWATERING, OTHER) *OPERATING ENGINEERS LOCAL 4*	12/01/2021	$33.69	$14.00	$16.05	$0.00	$63.74
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
READY-MIX CONCRETE DRIVER *TEAMSTERS 170 - Dauphinais (Bellingham)*	01/01/2022	$25.75	$9.76	$4.00	$0.00	$39.51
	12/01/2022	$26.40	$10.26	$4.75	$0.00	$41.41
	01/01/2023	$26.40	$10.26	$4.75	$0.00	$41.41
	12/01/2023	$27.00	$10.76	$5.45	$0.00	$43.21
	01/01/2024	$27.00	$10.76	$5.45	$0.00	$43.21
	12/01/2024	$27.60	$11.26	$6.15	$0.00	$45.01
	01/01/2025	$27.60	$11.26	$6.15	$0.00	$45.01
RECLAIMERS *OPERATING ENGINEERS LOCAL 4*	12/01/2021	$50.83	$14.00	$16.05	$0.00	$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
RIDE-ON MOTORIZED BUGGY OPERATOR *LABORERS - ZONE 2*	06/01/2022	$36.56	$9.10	$16.64	$0.00	$62.30
	12/01/2022	$37.41	$9.10	$16.64	$0.00	$63.15
	06/01/2023	$38.31	$9.10	$16.64	$0.00	$64.05
	12/01/2023	$39.21	$9.10	$16.64	$0.00	$64.95
For apprentice rates see "Apprentice- LABORER"						
ROLLER/SPREADER/MULCHING MACHINE *OPERATING ENGINEERS LOCAL 4*	12/01/2021	$50.83	$14.00	$16.05	$0.00	$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
ROOFER (Inc.Roofer Waterproofng &Roofer Damproofg) *ROOFERS LOCAL 33*	02/01/2022	$47.03	$12.28	$19.45	$0.00	$78.76

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *ROOFER - Local 33*

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$23.52	$12.28	$5.21	$0.00	$41.01
2	60	$28.22	$12.28	$19.45	$0.00	$59.95
3	65	$30.57	$12.28	$19.45	$0.00	$62.30
4	75	$35.27	$12.28	$19.45	$0.00	$67.00
5	85	$39.98	$12.28	$19.45	$0.00	$71.71

Notes: ** 1:5, 2:6-10, the 1:10; Reroofing: 1:4, then 1:1
Step 1 is 2000 hrs.; Steps 2-5 are 1000 hrs.
(Hot Pitch Mechanics' receive $1.00 hr. above ROOFER)

Apprentice to Journeyworker Ratio:**

ROOFER SLATE / TILE / PRECAST CONCRETE *ROOFERS LOCAL 33*	02/01/2022	$47.28	$12.28	$19.45	$0.00	$79.01
For apprentice rates see "Apprentice- ROOFER"						
SHEETMETAL WORKER *SHEETMETAL WORKERS LOCAL 63*	01/01/2022	$39.29	$10.64	$17.33	$2.02	$69.28

Apprentice - *SHEET METAL WORKER - Local 63*

Effective Date - 01/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	$17.68	$4.79	$4.67	$0.81	$27.95
2	50	$19.65	$5.32	$5.19	$0.90	$31.06
3	55	$21.61	$5.85	$9.33	$1.10	$37.89
4	60	$23.57	$6.38	$9.33	$1.18	$40.46
5	65	$25.54	$6.92	$9.33	$1.25	$43.04
6	70	$27.50	$7.45	$9.33	$1.33	$45.61
7	75	$29.47	$7.98	$9.33	$1.40	$48.18
8	80	$31.43	$8.51	$16.29	$1.69	$57.92
9	85	$33.40	$9.04	$16.29	$1.76	$60.49
10	90	$35.36	$9.58	$16.29	$1.84	$63.07

Notes:

Apprentice to Journeyworker Ratio:1:3

SPECIALIZED EARTH MOVING EQUIP < 35 TONS *TEAMSTERS JOINT COUNCIL NO. 10 ZONE B*	12/01/2021	$36.24	$13.41	$16.01	$0.00	$65.66
SPECIALIZED EARTH MOVING EQUIP > 35 TONS *TEAMSTERS JOINT COUNCIL NO. 10 ZONE B*	12/01/2021	$36.53	$13.41	$16.01	$0.00	$65.95
SPRINKLER FITTER *SPRINKLER FITTERS LOCAL 669*	04/01/2021	$43.14	$10.55	$16.41	$0.00	$70.10

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *SPRINKLER FITTER - Local 669*

Effective Date - 04/01/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	45	$19.41	$7.75	$0.00	$0.00	$27.16
2	50	$21.57	$7.75	$0.00	$0.00	$29.32
3	55	$23.73	$10.55	$8.15	$0.00	$42.43
4	60	$25.88	$10.55	$8.15	$0.00	$44.58
5	65	$28.04	$10.55	$8.40	$0.00	$46.99
6	70	$30.20	$10.55	$8.40	$0.00	$49.15
7	75	$32.36	$10.55	$8.40	$0.00	$51.31
8	80	$34.51	$10.55	$8.40	$0.00	$53.46
9	85	$36.67	$10.55	$8.40	$0.00	$55.62
10	90	$38.83	$10.55	$8.40	$0.00	$57.78

Notes:

Apprentice to Journeyworker Ratio:1:1

STEAM BOILER OPERATOR *OPERATING ENGINEERS LOCAL 4*	12/01/2021	$50.83	$14.00	$16.05	$0.00	$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN *OPERATING ENGINEERS LOCAL 4*	12/01/2021	$50.83	$14.00	$16.05	$0.00	$80.88
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
TERRAZZO FINISHERS *BRICKLAYERS LOCAL 3 - MARBLE & TILE*	02/01/2022	$56.09	$11.39	$22.34	$0.00	$89.82

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

Effective Date - 02/01/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$28.05	$11.39	$22.34	$0.00	$61.78
2	60	$33.65	$11.39	$22.34	$0.00	$67.38
3	70	$39.26	$11.39	$22.34	$0.00	$72.99
4	80	$44.87	$11.39	$22.34	$0.00	$78.60
5	90	$50.48	$11.39	$22.34	$0.00	$84.21

Notes:

Apprentice to Journeyworker Ratio:1:3

TEST BORING DRILLER *LABORERS - FOUNDATION AND MARINE*	12/01/2021	$42.58	$9.10	$17.72	$0.00	$69.40
For apprentice rates see "Apprentice- LABORER"						
TEST BORING DRILLER HELPER *LABORERS - FOUNDATION AND MARINE*	12/01/2021	$41.30	$9.10	$17.72	$0.00	$68.12
For apprentice rates see "Apprentice- LABORER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
TEST BORING LABORER *LABORERS - FOUNDATION AND MARINE* For apprentice rates see "Apprentice- LABORER"	12/01/2021	$41.18	$9.10	$17.72	$0.00	$68.00
TRACTORS/PORTABLE STEAM GENERATORS *OPERATING ENGINEERS LOCAL 4* For apprentice rates see "Apprentice- OPERATING ENGINEERS"	12/01/2021	$50.83	$14.00	$16.05	$0.00	$80.88
TRAILERS FOR EARTH MOVING EQUIPMENT *TEAMSTERS JOINT COUNCIL NO. 10 ZONE B*	12/01/2021	$36.82	$13.41	$16.01	$0.00	$66.24
TUNNEL WORK - COMPRESSED AIR *LABORERS (COMPRESSED AIR)* For apprentice rates see "Apprentice- LABORER"	12/01/2021	$53.41	$9.10	$18.17	$0.00	$80.68
TUNNEL WORK - COMPRESSED AIR (HAZ. WASTE) *LABORERS (COMPRESSED AIR)* For apprentice rates see "Apprentice- LABORER"	12/01/2021	$55.41	$9.10	$18.17	$0.00	$82.68
TUNNEL WORK - FREE AIR *LABORERS (FREE AIR TUNNEL)* For apprentice rates see "Apprentice- LABORER"	12/01/2021	$45.48	$9.10	$18.17	$0.00	$72.75
TUNNEL WORK - FREE AIR (HAZ. WASTE) *LABORERS (FREE AIR TUNNEL)* For apprentice rates see "Apprentice- LABORER"	12/01/2021	$47.48	$9.10	$18.17	$0.00	$74.75
VAC-HAUL *TEAMSTERS JOINT COUNCIL NO. 10 ZONE B*	12/01/2021	$36.24	$13.41	$16.01	$0.00	$65.66
VOICE-DATA-VIDEO TECHNICIAN *ELECTRICIANS LOCAL 96*	09/05/2021	$32.86	$11.57	$15.72	$0.00	$60.15
	09/04/2022	$34.19	$12.20	$15.91	$0.00	$62.30

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Apprentice - *VOICE-DATA-VIDEO TECHNICIAN - Local 96*

Effective Date - 09/05/2021

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$16.43	$11.57	$4.10	$0.00	$32.10
2	55	$18.07	$11.57	$4.15	$0.00	$33.79
3	60	$19.72	$11.57	$15.32	$0.00	$46.61
4	65	$21.36	$11.57	$15.37	$0.00	$48.30
5	70	$23.00	$11.57	$15.42	$0.00	$49.99
6	75	$24.65	$11.57	$15.47	$0.00	$51.69
7	80	$26.29	$11.57	$15.52	$0.00	$53.38
8	85	$27.93	$11.57	$15.57	$0.00	$55.07

Effective Date - 09/04/2022

Step	percent	Apprentice Base Wage	Health	Pension	Supplemental Unemployment	Total Rate
1	50	$17.10	$12.20	$4.27	$0.00	$33.57
2	55	$18.80	$12.20	$4.32	$0.00	$35.32
3	60	$20.51	$12.20	$15.50	$0.00	$48.21
4	65	$22.22	$12.20	$15.55	$0.00	$49.97
5	70	$23.93	$12.20	$15.60	$0.00	$51.73
6	75	$25.64	$12.20	$15.65	$0.00	$53.49
7	80	$27.35	$12.20	$15.70	$0.00	$55.25
8	85	$29.06	$12.20	$15.75	$0.00	$57.01

Notes:

Apprentice to Journeyworker Ratio:1:1

WAGON DRILL OPERATOR *LABORERS - ZONE 2*	06/01/2022	$36.56	$9.10	$16.64	$0.00	$62.30
	12/01/2022	$37.41	$9.10	$16.64	$0.00	$63.15
	06/01/2023	$38.31	$9.10	$16.64	$0.00	$64.05
	12/01/2023	$39.21	$9.10	$16.64	$0.00	$64.95
For apprentice rates see "Apprentice- LABORER"						
WAGON DRILL OPERATOR (HEAVY & HIGHWAY) *LABORERS - ZONE 2 (HEAVY & HIGHWAY)*	12/01/2021	$35.66	$9.10	$16.64	$0.00	$61.40
For apprentice rates see "Apprentice- LABORER (Heavy and Highway)"						
WASTE WATER PUMP OPERATOR *OPERATING ENGINEERS LOCAL 4*	12/01/2021	$51.38	$14.00	$16.05	$0.00	$81.43
For apprentice rates see "Apprentice- OPERATING ENGINEERS"						
WATER METER INSTALLER *PLUMBERS LOCAL 4*	03/01/2022	$49.50	$9.80	$16.12	$0.00	$75.42
For apprentice rates see "Apprentice- PLUMBER/PIPEFITTER" or "PLUMBER/GASFITTER"						

Classification	Effective Date	Base Wage	Health	Pension	Supplemental Unemployment	Total Rate

Additional Apprentice Information:

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

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

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

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

DIVISION 01
GENERAL REQUIREMENTS

SECTION 01 1010

SUMMARY OF WORK

PART 1 GENERAL

1.1 SUMMARY

A. This Section summarizes the Work of the Project, including the following:

1. Project Description
2. Time of Completion
3. Work Under Other Contracts
4. Work Day
5. Work Sequence
6. Contractor's Use of Premises
7. Owner Occupancy
8. Pre-Ordered Products
9. Owner-Furnished Items
10. Miscellaneous Provisions, including Environmental Performance where applicable.

1.2 PROJECT DESCRIPTION

A. The Project "**CAPILLO PARK AND MCCANN FIELDS UPGRADES**" consists of walkways, skate park, parking area, handball court, landscaping, and miscellaneous site improvements at the Project Site, as shown on Contract Documents prepared by BSC Group, Inc., dated June 22, 2022.

B. The following generally describes the proposed scope of work. Refer to the complete set of Drawings and Specifications for more complete information.

1. Mobilization, site preparation, demobilization, and close-out: mobilize all necessary personnel, tools and equipment; prepare the Project Site as shown on the Drawings, as called for in the Specifications, and as required to complete the work in a safe and controlled manner; establish and maintain temporary facilities or work practices as shown on the Drawings, as called for in the Specifications, and as required to complete the work including, but not necessarily limited to, administrative facilities, fencing, erosion and sedimentation controls and related facilities. At the conclusion of work restore and stabilize affected areas and fully demobilize all temporary facilities, equipment, and materials; complete close-out as shown on the Drawings and as called for in the Specifications.

2. Erosion and Sedimentation Controls: Provide costs for the installation of all temporary and permanent erosion controls as called for in the Specifications and/or shown on the Drawings.

3. Site Preparation: Demolish and completely remove those improvements and appurtenances as called-for in the Specifications and/or shown on the Drawings. Provide for the off-site removal and legal disposal of all demolition waste unless otherwise noted.

4. Construction of Site Improvements: Provide for the import, placement, compaction and grading of fill materials to meet the lines and grades, installation of bituminous concrete walks, concrete pavement, handball court, skate park, and landscape improvements as depicted on the Drawings and as called for in the Specifications.

5. Incidental Work: Perform all incidental work items required to complete the work as shown on the Drawings and as called for in the Specifications. Incidental work shall be defined as all work not otherwise specified but obviously necessary for the proper completion of the work, including, but not necessarily limited to, permitting, meetings, submittals, mock-ups, exploratory excavations, construction layout, measurements, general project coordination, health and safety, and project documentation.

6. Protection for the public, building, grounds from damage during this contract is always the responsibility of Contractor for this project.

1.3 TIME OF COMPLETION

A. Work required by the project shall commence immediately upon receipt of a Notice to Proceed.

B. The successful bidder shall obtain the Certificate of Substantial Completion **90 days** upon receipt of Notice to Proceed.

C. Final completion shall be no later than **120 days** upon Notice to Proceed.

1.4 WORK UNDER OTHER CONTRACTS

A. Owner reserves the right to award other contracts in connection with other portions of the Project under these or similar contract conditions, even if the work of such contracts is of similar nature, character or trade.

B. Owner reserves the right to perform operations related to the Project with the Owner's own forces.

1.5 WORK DAY

A. The normal workday shall be 7:00 a.m. to 4:30 p.m. Monday through Friday, excluding State granted Holidays. Permission must be requested and approved in writing to perform work outside the normal working hours or on a State Holiday.

B. In addition to reasons determined by Owner, approval of deviations in work hours is dependent upon availability of Owner's supervisory personnel.

C. If Contractor determines that work on this project must be performed during a time other than normal working hours of Owner, costs for any premium time must be included in the Base Bid.

1.6 WORK SEQUENCE

A. The Work will be conducted in a single construction phase over the designated time of completion. Sequencing of the work will be at Contractor's discretion to meet the require work

objectives within the required time of completion, with the exception of those specific sequencing requirements identified on the Drawings or in the Specifications.

1.7 CONTRACTOR USE OF PREMISES

A. General: Limit use of the premises to construction activities in areas indicated; allow for Owner occupancy and use.

B. Confine operations to areas within Contract limits indicated. Portions of the site beyond areas in which construction operations are indicated are not to be disturbed.

C. Keep driveways and entrances serving the premises clear and available to the Owner, Owner's employees, and visitor's at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site.

D. Keep access ways and entrances serving the Owner's facilities clear and available to the Owner, Owner's employees, and visitor's at all times.

1.8 OWNER OCCUPANCY

A. Full Owner Occupancy: The Owner will occupy the property during the entire construction period. Cooperate with the Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with the Owner's operations.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION

SECTION 01 3120

QUALITY CONTROL

PART 1 GENERAL

1.1 SUMMARY

A. Section includes:

1. Quality assurance and control of installation
2. References
3. Field samples
4. Mock up
5. Inspection and testing laboratory services
6. Manufacturers' field services and reports.

B. Contractor shall coordinate work between all Contractors, sections, and trades required for the proper completion of the work.

C. Contractor is responsible for all health and safety.

1.2 REFERENCES

A. Reference to any technical society, organization, group or regulation are made in accordance with applicable designation and unless otherwise noted or specified, all work shall conform to the latest edition as applicable.

B. Should specified reference standards conflict with Contract Documents, request clarification from Engineer before proceeding.

1.3 DEFINITIONS

A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.

B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Engineer.

C. Mockups: Full-size physical assemblies that are constructed on-site. Mockups are constructed to verify selections made under Sample submittals; to demonstrate aesthetic effects and, where indicated, qualities of materials and execution; to review coordination, testing, or operation; to show interface between dissimilar materials; and to demonstrate compliance with specified installation tolerances. Mockups are not Samples. Unless otherwise indicated, approved mockups establish the standard by which the Work will be judged.

D. Preconstruction Testing: Tests and inspections performed specifically for Project before products and materials are incorporated into the Work, to verify performance or compliance with specified criteria.

E. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.

F. Source Quality-Control Testing: Tests and inspections that are performed at the source, e.g., plant, mill, factory, or shop.

G. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.

H. Testing Laboratory: An entity engaged to perform specific laboratory tests.

I. Testing Agency: An entity engaged to collect samples, perform specific in-field tests, and/or inspections. The Testing Laboratory may provide the services of the Testing Agency.

J. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.

K. Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade(s).

L. Experienced: When used with an entity or individual, “experienced” means having successfully completed the minimum number and type of projects indicated in individual Specification Sections, or in the absence of such specified minimum number and type, a minimum of ten (10) years in the execution of projects that are similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of all authorities having jurisdiction.

1.4 SUBMITTALS

A. Contractor’s Quality-Control Plan: For quality-assurance and quality-control activities and responsibilities.

B. Qualification Data: For Contractor’s quality-control personnel.

C. Contractor’s Statement of Responsibility: When required by authorities having jurisdiction, submit copy of written statement of responsibility sent to authorities having jurisdiction before starting work on the following systems:

D. Testing Agency Qualifications: For testing agencies specified in “Quality Assurance” Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.

E. Schedule of Tests and Inspections: Prepare in tabular form and include the following:

1. Specification Section number and title.

2. Entity responsible for performing tests and inspections.

3. Description of test and inspection.

4. Identification of applicable standards.

5. Identification of test and inspection methods.

6. Number of tests and inspections required.

7. Time schedule or time span for tests and inspections.

8. Requirements for obtaining samples.

9. Unique characteristics of each quality-control service.

1.5 CONTRACTOR'S QUALITY-CONTROL PLAN

A. Quality-Control Plan, General: Submit quality-control plan within 10 days of Notice of Award, and not less than five (5) days prior to the preconstruction conference. Submit in format acceptable to Engineer. Identify personnel, procedures, controls, instructions, tests, records, and forms to be used to carry out Contractor's quality-assurance and quality-control responsibilities. Coordinate with Contractor's construction schedule.

B. Quality-Control Personnel: Engage qualified full-time personnel trained and experienced in managing and executing quality-assurance and quality-control procedures similar in nature and extent to those required for Project. Project quality-control manager, who may also serve as Project superintendent.

C. Submittal Procedure: Describe procedures for ensuring compliance with requirements through review and management of submittal process. Indicate qualifications of personnel responsible for submittal review.

D. Testing and Inspection: In quality-control plan, include a comprehensive schedule of Work requiring testing or inspection, including the following:

1. Contractor-performed tests and inspections including subcontractor-performed tests and inspections. Include required tests and inspections and Contractor-elected tests and inspections.

2. Special inspections required by authorities having jurisdiction and indicated on the "Statement of Special Inspections."

3. Owner-performed tests and inspections indicated in the Contract Documents.

E. Continuous Inspection of Workmanship: Describe process for continuous inspection during construction to identify and correct deficiencies in workmanship in addition to testing and inspection specified. Indicate types of corrective actions to be required to bring work into compliance with standards of workmanship established by Contract requirements and approved mockups.

F. Monitoring and Documentation: Maintain testing and inspection reports including log of approved and rejected results. Include work Engineer has indicated as nonconforming or defective. Indicate corrective actions taken to bring nonconforming work into compliance with requirements. Comply with requirements of authorities having jurisdiction.

1.6 REPORTS AND DOCUMENTS

A. Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:

1. Date of issue.
2. Project title and number.
3. Name, address, and telephone number of testing agency.
4. Dates and locations of samples and tests or inspections.
5. Names of individuals making tests and inspections.
6. Description of the Work and test and inspection method.
7. Identification of product and Specification Section.
8. Complete test or inspection data.
9. Test and inspection results and an interpretation of test results.
10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
12. Name and signature of laboratory inspector.
13. Recommendations on retesting and re-inspecting.

B. Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:

1. Name, address, and telephone number of technical representative making report.
2. Statement on condition of substrates and their acceptability for installation of product.
3. Statement that products at Project site comply with requirements.
4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
6. Statement whether conditions, products, and installation will affect warranty.
7. Other required items indicated in individual Specification Sections.

C. Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:

1. Name, address, and telephone number of factory-authorized service representative making report.

2. Statement that equipment complies with requirements.

3. Results of operational and other tests and a statement of whether observed performance complies with requirements.

4. Statement whether conditions, products, and installation will affect warranty.

5. Other required items indicated in individual Specification Sections.

D. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.7 QUALITY ASSURANCE

A. General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.

B. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

C. Monitor quality control over suppliers, manufacturers, products, services, site conditions and workmanship, to produce Work of specified quality.

D. Comply fully with manufacturers' instructions, including each step in sequence.

E. Should manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.

F. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes or specified requirements indicate higher standards or more precise workmanship.

G. Perform work by persons qualified to produce workmanship of specified quality.

H. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

I. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

J. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

K. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.

L. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.

M. Specialists: Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.

1. Requirements of authorities having jurisdiction shall supersede requirements for specialists.

N. Testing Laboratory and Testing Agency Qualifications: An independent agency with the experience and capability to conduct inspection, sampling, testing, and analysis required, as documented according to ASTM E 329; and with additional qualifications specified in individual Sections; and, where required by authorities having jurisdiction, that is acceptable to authorities.

O. Preconstruction Testing: Where Testing Agency or Testing Laboratory is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:

1. Contractor responsibilities include the following:

a. Provide test specimens representative of proposed products and construction.

b. Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.

c. Provide sizes and configurations of test assemblies, mockups, and laboratory mockups to adequately demonstrate capability of products to comply with performance requirements.

d. Build site-assembled test assemblies and mockups using installers who will perform same tasks for Project.

e. When testing is complete, remove test specimens, assemblies, and mockups,; do not reuse products on Project.

2. Testing Agency /Testing Laboratory Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to Engineer, with copy to Owner. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.

P. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:

1. Build mockups in location and of size indicated or, if not indicated, as directed by Engineer.

2. Notify Engineer seven (7) working days in advance of dates and times when mockups will be constructed.

3. Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed during the construction at Project.

4. Demonstrate the proposed range of aesthetic effects and workmanship.

5. Obtain Engineer's approval of mockups before starting work, fabrication, or construction.

    a. Allow seven (7) working days for initial review and each re-review of each mockup.

6. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.

7. Demolish and remove mockups when directed unless otherwise indicated.

1.8 QUALITY CONTROL

A. Sampling, Testing, and Inspection

1. Reports will be submitted by the independent firm to Engineer, Owner, Construction Manager, affected Engineers and Contractor, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.

2. Retesting required because of non-conformance to specified requirements shall be performed by the same independent firm as required and/or on instructions by Engineer. Payment for retesting will be charged to Contractor by deducting inspection or testing charges from the Contract Sum/Price.

3. Testing by Owner, Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified Testing Agency to perform these services.

    a. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.

    b. Payment for these services will be made from testing and inspecting allowances, as authorized by Change Orders.

    c. Costs for re-testing and re-inspecting construction that replaces or is necessitated by Work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by deduct Change Order.

4. Testing by Owner, Discretionary Testing

    a. Engineer reserves the right to perform any material testing or in-field testing on the project, reserves the right to determine the suitability of all materials to be used for in the work, and to reject any material or completed construction that is not in conformance with applicable Specifications or standards.

5. Contractor Responsibilities: Where quality-control services are indicated as Contractor's responsibility, retain the services of a third-party Testing Agency and Testing Laboratory to perform sampling, testing, monitoring, or inspection as required. Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional

quality-control activities required to verify that the Work complies with requirements, whether specified or not.

a. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.

b. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.

c. Notify Testing Agency at least 24 hours in advance of time when Work that requires sampling, testing, monitoring, or inspecting will be performed.

d. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.

e. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.

f. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.

B. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing.

C. Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in pre-installation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.

D. Re-testing/Re-inspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and re-inspecting, for construction that replaced Work that failed to comply with the Contract Documents.

E. Testing Agency Responsibilities: Cooperate with Engineer and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.

1. Notify Engineer and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.

2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.

3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.

4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.

5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.

6. Do not perform any duties of Contractor.

F. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:

1. Access to the Work.

2. Incidental labor and facilities necessary to facilitate tests and inspections.

3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.

4. Facilities for storage and field curing of test samples.

5. Delivery of samples to testing agencies.

6. Preliminary design mix proposed for use for material mixes that require control by testing agency.

7. Security and protection for samples and for testing and inspecting equipment at Project site.

G. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.

1. Schedule times for tests, inspections, obtaining samples, and similar activities.

H. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents as a component of Contractor's quality-control plan. Coordinate and submit concurrently with Contractor's construction schedule. Update as the Work progresses.

1. Distribution: Distribute schedule to Owner, Engineer, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

1.9 FIELD SAMPLES

A. Install field samples at the site as required by individual specifications Sections for review.

B. Acceptable samples represent a quality level for the Work.

C. Where field sample is specified in individual Sections to be removed, clear area after field sample has been accepted by Engineer.

1.10 MOCK-UP

A. Assemble and erect specified items, with specified attachment and anchorage devices, flashings, seals and finishes.

B. Where mock up is specified in individual Sections to be removed, clear area after mock-up has been accepted by Engineer.

1.11 MANUFACTURERS' FIELD SERVICES AND REPORTS

A. When specified in individual specification Sections, require material or Product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment and test, adjust and balance of equipment as applicable and to initiate instructions when necessary.

B. Individuals to report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.1 TEST AND INSPECTION LOG

A. Test and Inspection Log: Prepare a record of tests and inspections. Include the following:

1. Date test or inspection was conducted.

2. Description of the Work tested or inspected.

3. Date test or inspection results were transmitted to Engineer.

4. Identification of testing agency or special inspector conducting test or inspection.

B. Maintain log at Project site. Post changes and revisions as they occur. Provide access to test and inspection log for Engineer's reference during normal working hours.

3.2 REPAIR AND PROTECTION

A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.

1. Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Division 01 Section "Execution."

B. Protect construction exposed by or for quality-control service activities.

C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION

SECTION 01 3300

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes

1. Requirements and procedures for preparing and transmitting data to Engineer.

2. Various submittals are specified under applicable Specification Sections.

B. Unless otherwise stipulated herein, all submittals requiring review for conformance with the design documents shall be transmitted by electronic mail to Engineer.

1.2 DEFINITIONS

A. Conforms: The term “Conforms,” when applied by the Engineer to the Contractor’s submittals, drawings or documents, shall mean the submittals, drawings or documents are satisfactory from the standpoint that the Engineer has not observed any statement or feature that appears to deviate from the Specifications requirements. The Contractor shall retain the entire responsibility for complete conformance with all of the Specification’s requirements.

B. Conforms As Noted: The term “Conforms As Noted” when applied by the Engineer to the Contractor’s submittals, drawings or documents, shall mean the submittals, drawings or documents conform as defined above, except that the changes shown are necessary to be in conformance with the Specification’s requirements. On the basis that the Contractor shall retain the entire responsibility for compliance with all of the Specification’s requirements, the Contractor shall either:

1. Incorporate the changes into its work, drawings or documents if the change does not affect the Contractor’s responsibility under warranty.

2. Inform the Engineer that the changes cannot be made without prejudice to the Contractor’s responsibility under the warranty and resubmit with explanations of the reasons therefore.

C. Does Not Conform or Revise and Resubmit: The terms “Does Not Conform” or “Revise and Resubmit” when applied by Engineer to Contractor’s submittals, drawings or documents, shall mean the submittals, drawings or documents are not satisfactory from the standpoint that the Engineer has observed statements or features that appear to deviate from the Specifications requirements.

1.3 CONTRACTOR RESPONSIBILITIES

A. Prepare submittals and review for accuracy prior to submission, and respond to Engineer’s action.

B. Determine and verify:

1. Field measurements;

2. Field construction criteria; and

3. Conformance to Specifications.

C. Coordinate each submittal with requirements of Work and of Contract Documents.

D. Notify Engineer in writing, at time of submission, of any deviations in submittals from requirements of drawings, Specifications and Contract Documents.

1.4 SUBMITTAL PROCEDURES

A. Coordinate preparation and processing of submittals with performance of construction activities. Unless a specific submittal time-frame is specified in the related specification Section, transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.

1. Coordinate each submittal with phases of the Work that require sequential activity.

2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.

a. Engineer reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

3. At a minimum, submittals shall be provided to Owner and Engineer in duplicate. Additional requirements for the number of submittals are contained in the specific Specification Sections.

4. Processing: Allow sufficient review time so that installation will not be delayed as a result of the time required to process submittals, including time for re-submittals.

a. Allow five (5) working days for initial review. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. The Engineer will promptly advise the Contractor when a submittal being processed must be delayed for coordination.

b. Any submittals which may require review and/or approval by an outside Agency (City, Town, utility, etc.) shall be allocated a minimum of twenty (20) working days. The Owner shall not be held responsible for any delay associated with the approval or rejection of any substitution or other revisions proposed by the Contractor.

c. If an intermediate submittal is necessary, process the same as the initial submittal.

d. Allow five (5) working days for reprocessing each submittal.

e. No extension of Contract Time will be authorized because of failure to transmit submittals to the Engineer sufficiently in advance of the Work to permit processing.

B. Submittal Preparation: Place a permanent label, cover page or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label, cover page or title block.

1. Provide a space approximately 4″ x 5″ on the label, cover page or beside the title block to record the Contractor’s review and approval markings and the action taken.

2. Include the following information on the label for processing and recording action taken:

    a. Submittal name, number and topic.

    b. Date of submission.

    c. Name and address of Contractor.

    d. Number and title of appropriate Specification Section annotated in accordance with this Section.

    e. Drawing number and detail references, as appropriate.

    f. Identification of revisions on re-submittals.

C. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from Contractor to Engineer using a transmittal form. Submittals received from sources other than Contractor will be returned without action.

1. All submittals shall be sent with an official transmittal.

2. With each submittal, provide the Specification Section or sheet number the item submitted is found under and a descriptive generic name based on its content.

3. Number each transmittal consecutively starting with 001. If requested by Engineer, match the submittal numbering indicated on the Submittal Schedule or Submittal Log.

4. All submittals shall be numbered conforming to the following example, with each component separated by a dash (-):

Submittal Numbering Format

A	B	C	D
001	01 5713	Silt Fence	New
002	31 2310	Granular Fill	New
002A	31 2310	Granular Fill	Resubmitted
002B	31 2310	Granular Fill	Additional Information

    a. The chronological identification number assigned to the submittal package.

    b. The Specification Section or sheet number the item submitted is found under.

    c. Keyword(s) from the descriptive generic submittal name.

    d. The status of the submittal.

Example

001-01 5713-Silt Fence-New

5. When re-submitting a rejected submittal or additional information, identify submittal with the original submittal number followed by a letter, starting with “A” and continuing for each subsequent re-submittal, to designate the additional submission(s).

6. On the transmittal, record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including minor variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.

7. Distribution: Following response to the initial submittal, Contractor shall print and distribute copies to the Subcontractors and other parties required to comply with scheduled dates. Post copies in the Project meeting room and temporary field office.

8. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.

1.5 SUBMITTAL SCHEDULE

A. As part of the development and acceptance of Contractor's construction schedule, prepare a schedule of submittals, complete and accurate to the best of Contractor's ability. Submit the schedule to the Engineer within five (5) business days following Contractor's receipt of the Notice of Award.

B. Coordinate submittal schedule with the list of subcontracts, schedule of values and the list of products as well as the Contractor's construction schedule.

C. Prior to each submittal, carefully review and coordinate all aspects of each item being submitted and verify that each item, and the submittal for it, conforms in all respects with the requirements of the Contract Documents. By affixing his signature to each submittal, Contractor is certifying that this coordination has been performed.

D. Coordinate the schedule with all necessary subcontractors to ensure their understanding of the importance of adhering to the approved schedule and their ability to so adhere. Coordinate as required to ensure the grouping of submittals as appropriate.

E. Distribution: Following response to initial submittal schedule, print and distribute copies to the Engineer, Subcontractors, and other parties required to comply with submittal dates indicated. Post copies in the Project meeting room and field office.

1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.

F. Tracking: Provide Engineer, at the beginning of each month, a list of all submittals over the previous month. Include the date each submittal was sent to Engineer, the content of each transmittal and the disposition of the submittal.

1.6 ENGINEER'S ACTION

A. Except for submittals for record, information or similar purposes, where action and return is required or requested, the Engineer will review each submittal, mark to indicate action taken, and return promptly.

1. Compliance with specified characteristics is the Contractor's responsibility.

B. Action Stamp: The Engineer will stamp each submittal with a uniform, self-explanatory action stamp. The stamp will be appropriately marked, as follows, to indicate the action taken:

1. No Exceptions Taken or Conforms: The term "No Exceptions Taken" or "Conforms," when applied by the Engineer to the Contractor's submittals, drawings or documents, shall mean the submittals, drawings or documents are satisfactory from the standpoint that the Engineer has not observed any statement or feature that appears to deviate from the Contract Specifications, Drawings, or other applicable Contract Documents. That part of the Work covered by the submittal may proceed provided it complies with requirements of the Contract Specifications, Drawings, or other applicable Contract Documents; final acceptance will depend upon that compliance. Contractor shall retain the entire responsibility for complete conformance with such Contract Specifications, Drawings, or other applicable Contract Documents.

2. Conforms As Noted or Furnish as Corrected: The term "Conforms as Noted" or "Furnish as Corrected" when applied by the Engineer to the Contractor's submittals, drawings or documents, shall mean the submittals, drawings or documents conform as defined above, except that the changes shown are necessary to be in conformance with the Contract Specifications, Drawings, or other applicable Contract Documents. That part of the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Specifications, Drawings, or other applicable Contract Documents; final acceptance will depend on that compliance. On the basis that, Contractor shall retain the entire responsibility for compliance with all of the Specification's requirements, the Contractor shall either:

    a. Incorporate the changes into its work, drawings or documents if the change does not affect the Contractor's responsibility under warranty.

    b. Inform the Engineer that the changes cannot be made without prejudice to the Contractor's responsibility under the warranty and resubmit with explanations of the reasons therefore.

3. Does Not Conform or Revise and Resubmit: The terms "Does Not Conform" or "Revise and Resubmit" when applied by Engineer to Contractor's submittals, drawings or documents, shall mean the submittals, drawings or documents are not satisfactory from the standpoint that the Engineer has observed statements or features that appear to deviate from the Contract Specifications, Drawings, or other applicable Contract Documents. Contractor shall not proceed with that part of the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. In response to this stamp, Contract shall either:

    a. Revise the submittal to conform with the Contract Specifications, Drawings, or other applicable Contract Documents and re-submit.

    b. Update the submittal with additional information as required and re-submit.

    c. Prepare a new submittal in accordance with notations and/or the requirements of the Contract Specifications, Drawings, or other applicable Contract Documents and re-submit.

4. Rejected: The term "Rejected," when applied by Engineer to Contractor's submittals, drawings or documents, shall mean the submittals, drawings or documents are not satisfactory from the standpoint that the Engineer has observed statements or features that appear to deviate from the Contract Specifications, Drawings, or other applicable Contract Documents. Contractor shall not proceed with that part of the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Submittals that are

rejected shall be revised as required to conform with the Contract Specifications, Drawings, or other applicable Contract Documents.

a. Do not permit submittals marked "Rejected" to be used at the Project site, or elsewhere where Work is in progress.

5. Other Action: Where a submittal is primarily for information or record purposes, special processing or other activity, the submittal will not be returned unless specifically requested and will be marked "Action Not Required" on Contractor's record of submittal. Submittals which are prepared but are not required will not be processed.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION

SECTION 01 5713

EROSION AND SEDIMENTATION CONTROL

PART 1 GENERAL

1.1 SUMMARY

A. This Section specifies requirements for temporary erosion and sedimentation control (ESC) provisions.

B. The work includes:

1. Providing all temporary erosion control measures as required during the life of the Contract to control soil erosion and water pollution.

2. The installation and maintenance of catch basin filters and other approved erosion control devices or methods.

C. Related Work: The following Sections contain work related to this Section:

1. Section 02 4101 Site Preparation

1.2 REFERENCES

A. Massachusetts Highway Department (MHD), Standard Specification for Highways and Bridges and the Boston Public Works Rules and Specifications for Excavation Activity Within the City of Boston, latest edition.American National Standards Institute (ANSI)

B. Code of Federal Regulations (CFR)

1. 29 CFR 1926, Safety and Health Regulations for Construction.

PART 2 PRODUCTS

2.1 MATERIALS

A. Catch Basin Filters shall be “Silt Sak” by Jennian, “Dandy Bag” by Dandy Products, “Drain Pac”, or approved equivalent.

B. Straw Wattle shall be 9-inch diameter straw wattle by U.S. Straw Wattle or approved equal.

PART 3 EXECUTION

3.1 GENERAL

A. Erosion and sediment controls shall be in placed prior to any soil disturbing activities including, but not limited to, dewatering, and excavation work.

B. All disturbed soils shall be stabilized, either permanently or temporarily, within two (2) weeks of disturbance.

C. At a minimum, the following shall apply:

1. Drainage leaving the site shall flow to water courses in such a manner as to prevent erosion.

D. When it becomes necessary, the Engineer will inform the Contractor of construction procedures and operations that jeopardize erosion control provisions. If these construction procedures and operations are not corrected promptly, the Engineer may suspend the performance of any or all construction activities until corrections have been made, and such suspension shall not be the basis of any claim by the Contractor for additional compensation from the Owner nor for an extension of time to complete the Work.

E. The Engineer has the authority to order immediate, additional, temporary control measures to prevent contamination of adjacent streams or other watercourses, or other areas of water impoundment and damage by erosion at no additional cost to the owner.

F. The Contractor shall construct all permanent erosion and sediment control features at the earliest practical time as outlined in the accepted schedule. Temporary erosion and sediment control measures shall be used to correct conditions that develop during construction which were unforeseen, but are needed prior to installation of permanent control features, or that are needed temporarily to control erosion or sedimentation which develops during construction operations

G. Where erosion is likely to be a problem, clearing and grubbing operations shall be scheduled and performed so that grading operations and permanent erosion and sediment control features can follow immediately thereafter, if conditions permit; otherwise, temporary control measures will be required between successive construction stages.

H. Failure by the Contractor to control erosion, pollution, and siltation shall be cause for the Owner to employ outside assistance to provide the necessary corrective measures. The cost of such assistance, including engineering costs, will be charged to the Contractor and appropriate deductions made to the Contractor's monthly progress payment request.

I. Temporary and permanent erosion and sedimentation control measures are shown on the Drawings. The Contractor shall strictly adhere to the provisions. Additionally, temporary measures shall be constructed to accommodate field conditions that develop during construction.

J. Temporary sedimentation traps or basins shall be employed as required during construction. The Contractor shall direct all possible site runoff to the temporary sedimentation basins.

K. The temporary sedimentation basins shall be maintained from the start of construction until construction of the permanent detention basins is completed and perimeter areas are stabilized. A temporary outlet shall be constructed above the expected sediment levels. Construction of the basins shall be sequenced so that the temporary outlet is installed and basin embankment is constructed with the material available from the initial site excavations.

3.2 MAINTENANCE AND CLEAN UP

A. The Contractor shall inspect erosion control devices weekly, immediately after each storm event and daily during prolonged rainfall and maintain them in good operating condition for the life of the contract. Hay bales shall be replaced when deteriorated, rotted or destroyed, and as directed by the Engineer.

B. The Contractor shall inspect the condition of diversion dikes and ditches, filter berms, interceptor dikes, sediment basins and other erosion and sedimentation control devices after each

rainstorm and during major storm events. Repairs shall be made as necessary and as directed by the Engineer.

C. Accumulated sediment trapped by erosion and sedimentation control devices shall be removed as follows or as otherwise directed by the Engineer:

1. Sedimentation traps: remove sediment buildup if greater than ½ the depth of the trap.

2. Silt sacks: remove sediment buildup if greater than two (2) inches deep or if sediment is preventing flow from entering basin; replace sacks if they are torn or have been punctured.

D. During construction, temporary outlets of the drainage systems shall direct the flow to temporary or permanent sedimentation basins.

E. Temporary soil erosion and sedimentation control devices shall be removed and adjacent areas outside the limits of grading restored upon completion of the work or when directed by the Engineer. Upon removal of the temporary controls, the site shall be restored to original condition.

END OF SECTION

SECTION 01 7113

MOBILIZATION

PART 1 GENERAL

1.1 SUMMARY

A. This Section specifies requirements for general preparation of the Project Site as required for construction operations including:

1. General Mobilization
2. Construction Site Safety
3. Utility Mark-Out
4. Temporary Utilities
5. Temporary Field Office
6. Security
7. Fire Protection

B. Contractor shall coordinate work between all Contractors, sections, and trades required for the proper completion of the work.

C. Contractor shall be responsible for all health and safety.

D. Contractor is solely responsible for obtaining permits or approvals which may be required to perform the work, including all costs, fees and taxes required or levied. Notify and obtain such permits or approvals from all agencies having jurisdiction prior to starting work.

1.2 REFERENCES

A. Reference herein to any technical society, organization, group or regulation are made in accordance with the following abbreviations and, unless otherwise noted or specified, all work under this Section shall conform to the latest edition as applicable.

B. American National Standards Institute (ANSI)

1. ANSI Z535.1 – American National Standard, Safety Colors.

C. Code of Federal Regulations (CFR)

1. 29 CFR 1926, Safety and Health Regulations for Construction.

1.3 SAFETY REQUIREMENTS

A. As a specialist in its field of work, Contractor accepts complete responsibility for performing its work safely. This includes sole responsibility for the health and safety of its employees, agents, subcontractors (and their employees) and any other person on or adjacent to the work area. Contractor's responsibility includes compliance with all current laws, codes, ordinances, rules, regulations, standards and requirements of applicable public and private agencies and authorities ("Laws"). Contractor must take all measures and safeguards necessary to protect: (1) employees, (whether or not working for the Contractor), (2) employees and agents of Owner, (3) members of the general public and (4) public and private property.

B. Contractor is an independent contractor, with responsibility for its means and methods and the safety of its workers and Owner is not intended to be and shall not be considered an employer of Contractor's employees. As such, it shall be Contractor's sole duty to monitor the performance and practices of its employees and subcontractors for safety, to ensure that the practices and methods of performing the work are safe and to immediately stop any unsafe practices by its employees or its second or subsequent tier subcontractors ("subcontractors") or their employees. No actions taken by Owner or its consultants to monitor practices or performance of the work for safety or to stop any unsafe practices by Contractor or its subcontractors shall be construed to suggest or imply that Owner or its consultants has or has assumed any obligation or duty to take such actions.

C. Contractor accepts complete responsibility for compliance with safety procedures and policies contained in the Contract Documents and compliance with all applicable Laws, relating to health or safety, including, but not limited to the Occupational Safety and Health Act of 1970, as amended, and the regulations and standards of the Occupational Safety & Health Administration and similar state agencies ("OSHA") ("Health and Safety Laws").

D. All obligations and requirements of Contractor in this document also apply to Contractor's subcontractors. No person or entity performing work for or on behalf of Contractor is excluded from compliance.

1.4 UTILITY MARK-OUT

A. Prior to commencing work, comply with utility mark-out requirements of the Call-Before-You-Dig System (1-800-922-4455).

1. Verify the location of all subsurface utilities marked through the Call-Before-You-Dig System.

B. Not all subsurface facilities or structures will be identified through the Call-Before-You-Dig System. Confirm the location of other subsurface utilities and other subsurface facilities or structures prior to commencing work.

1.5 TEMPORARY UTILITIES

A. Temporary Water

1. All water for construction purposes, as well as the means of having the water conveyed about the work, shall be provided by Contractor and the cost of this work shall be included in the cost of the work to be done under this Contract.

    a. The source, quality and quantity of water furnished shall at all times be satisfactory to Engineer.

2. Contractor shall coordinate with City of Waterbury, other water provider as applicable, for temporary water service. Obtain all permits and comply with applicable codes of jurisdictional authorities.

    a. Contractor shall pay Town of Southbridge, or other water provider as applicable, all fees for the provision of temporary water service and usage, including but not necessarily limited to those levied for applications, inspections, meters, valves, backflow prevention, other devices, and usage.

    b. Comply with Town of Southbridge requirements for temporary water service, including equipment which may be required such as meters, valves, backflow prevention or other devices.

3. Temporary Drinking Water

    a. Provide adequate potable drinking water, so piped, transported, and stored so as to keep it safe and fresh, and served from satisfactory types of sanitary drinking stands, fountains, or single service containers.

    b. Provide all such facilities and services in strict accordance with applicable health regulations.

B. Temporary Electric Power

1. Contractor shall coordinate with Eversource or other electric provider as applicable for temporary electric service to operate temporary facilities, construction equipment, temporary lighting, weather protection, heating, etc. Obtain all permits and comply with applicable codes of jurisdictional authorities and OSHA.

    a. Contractor shall pay Eversource or other electric provider as applicable for provision of temporary power facilities and usage.

    b. Contractor shall provide sufficient electric lighting so that all work may be done in a workmanlike manner when there is not sufficient daylight.

2. The use of alternate sources of temporary electric power such as generators shall be utilized only with the approval of Engineer.

C. Temporary Sanitary Facilities

1. Provide and maintain portable facilities and enclosures at the site as required to support the work of this project, and include cleaning, installation and removal to meet all OSHA requirements.

D. Other Temporary Services

1. Provide all other temporary services as required to satisfactorily complete the work.

1.6 TEMPORARY FIELD OFFICES

A. A temporary field office is not a requirement of the project.

1. If Contractor elects to utilize a temporary field office Contractor shall pay all costs for maintenance of temporary field office throughout the work.

2. Owner assumes no responsibility for security, theft, vandalism, or loss of any kind associated with Contractor's temporary field office.

1.7 SECURITY

A. Coordinate with the Town of Southbridge Police Department as required.

B. Security of work areas must be maintained by Contractor at all times during the work. Contractor shall provide for all security as necessary to control access to the Project Site and protection of Contractor's material and equipment.

1. Owner and Engineer assume no responsibility for equipment, tools or materials stored, staged or otherwise present at the Project Site. Contractor assumes full and complete responsibility for damage, theft or other loss occurring to equipment, tools or materials stored, staged or otherwise present at the Project Site.

1.8 FIRE PROTECTION

A. Comply with all applicable fire protection and prevention requirements which may be established by Federal, State or local governmental agencies.

1. Coordinate with the Southbridge Fire Department as required.

2. Prior to the start of any on-site work, comply with the following:

a. Provide the Town of Southbridge a summary of the work to be performed, including emergency Contractor contact personnel and work schedule.

b. Conduct a "walk-down" of the Project Site with a representative of the Town of Southbridge to review the proposed type and location of the work, access and egress to/from the site, and other pertinent issues which Contractor or City of Waterbury deem appropriate.

B. Take all precautions necessary to prevent fires. Contractor shall be responsible to ensure that the area within the Project Limits is kept orderly and clean and that combustible rubbish and construction debris is promptly removed from the Project Site.

C. Installation of equipment suitable for fire protection shall be done as soon as possible after commencement of operations.

D. Fuel for cutting and heating torches shall be gas only and shall be contained in UL-approved containers.

E. Provide and maintain fire extinguishers in the immediate vicinity where welding tools or torches of any type are in use. The fire extinguisher shall be a type appropriate for the fire hazards of the work area. Contractor shall provide a fire watch during times of welding or burning near combustible materials.

PART 2 PRODUCTS – NOT USED

2.1 CONSTRUCTION SIGNS

A. Construction Safety Signs: Provide Construction Safety Signs as required around the Project Site to provide warning of potential dangers or hazards associated with construction activities. Conform with 29 CFR 1926 and other State or local requirements.

B. Construction Safety Signs shall include the following:

1. Danger Signs: Danger signs shall be used only where an immediate hazard exists.

a. Danger signs shall have red as the predominating color for the upper panel; black outline on the borders; and a white lower panel for additional sign wording.

2. Caution Signs: Caution signs shall be used only to warn against potential hazards or to caution against unsafe practices.

a. Caution signs shall have yellow as the predominating color; black upper panel and borders; yellow lettering of "caution" on the black panel; and the lower yellow panel for additional sign wording. Black lettering shall be used for additional wording.

b. Standard color of the background: yellow; panel, black with yellow letters. Any letters used against the yellow background shall be black. Colors: opaque glossy samples, ANSI Z535.1.

3. Exit Signs: Exit signs, when required, shall be lettered in legible red letters, not less than 6 inches high, on a white field and the principal stroke of the letters shall be at least three-fourths inch in width.

4. Safety Instruction Signs: Safety instruction signs, when used, shall be white with green upper panel with white letters to convey the principal message. Any additional wording on the sign shall be black letters on the white background.

5. Directional Signs: Directional signs, other than automotive traffic signs specified in "Traffic Signs" below, shall be white with a black panel and a white directional symbol. Any additional wording on the sign shall be black letters on the white background. Where applicable, directional signs shall conform to the *Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD).*

6. Traffic Signs: Construction areas shall be posted with legible traffic signs at points of hazard. All traffic control signs or devices used for protection of construction workers shall conform to the *Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD).*

C. Temporary Sign Mounting

1. Fence Mounted: Heavy duty nylon cable ties, stainless steel wire, or other approved method.

2. Post-mounted: Unless otherwise approved, ConnDOT "Breakaway Type II Installation." Posts shall be steel, 3 pounds/foot Type A or B.

    a. Mounting height: 7 ft. Horizontal clearance: Locate post such that no portion of sign is within 2 ft of roadway/travelway edge.

PART 3 EXECUTION

3.1 GENERAL MOBILIZATION

A. Sedimentation and Erosion Control

1. Install sedimentation and erosion controls in accordance with Section 01 5713 – Temporary Erosion and Sedimentation Controls.

B. Construction Entrance

1. Locate stabilized construction entrance(s) (anti-tracking pad) as shown on the Drawings.

2. The stabilized construction entrance shall be installed prior to any site work which involving heavy equipment or any site disturbance which may reasonably be expected to generate soils, mud, or other accumulations which may adhere to vehicles leaving the Project Site.

3. Remove stabilized construction entrance at the completion of the work.

C. Fencing and Barriers

1. Temporary Construction Fencing

    a. Install temporary construction fencing as shown on the Drawings or as may be required to control access to the work or hazardous areas related thereto.

    b. Contractor is solely responsible for securing the entire Project Site or area of the Work as necessary for proper control of operations on the Project Site and as required to complete the work in a safe and secure manner whether such fencing is shown on the Drawings or not.

2. Other Barriers and Similar Facilities

    a. Provide other safety barriers, including but not limited to, fencing, barricades, and signage as required to prevent unauthorized entry to the Project Site, construction areas or open excavations. Provide barriers which are necessary for proper control of operations on the Project Site and as required to complete the work in a safe and secure manner. Comply at all times with applicable federal, state and local regulations. Adapt barriers and associated protection to evolving site conditions throughout the progress of the work.

D. Other Safety Devices and Work Controls

1. Provide other safety devices, including but not limited to, signs, cones, barrels, lights, warning lights, and sirens as required for safety. Provide those safety devices which are necessary for proper control of operations on the Project Site and as required to complete the work in a safe and secure manner. Comply at all times with applicable federal, state

and local regulations. Adapt safety devices to evolving site conditions throughout the progress of the work.

END OF SECTION

SECTION 01 7700

PROJECT CLOSE-OUT

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Substantial Completion.

2. Warranties.

3. Inspections.

4. Final cleaning.

5. Final Acceptance.

6. Project record documents.

1.2 SUBMITTALS

A. Submit Close-Out Submittals as indicated herein. Provide other Close-Out submittals that may be called-for in other Specification Sections.

1.3 SUBSTANTIAL COMPLETION

A. Preliminary Procedures: Before requesting inspection for Certification of Substantial Completion, complete the following (list exceptions in the request).

B. In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100 percent completion for the portion of the Work claimed as Substantially Complete. Include supporting documentation for completion as indicated in the Contract Documents and a statement showing an accounting of changes to the Contract Sum if applicable.

C. If 100 percent completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the Work is not complete.

D. Submit warranties, workmanship bonds, maintenance agreements, testing results, final certifications, and similar documents.

E. Obtain and submit releases enabling the Owner unrestricted use of the work and access to services and utilities; include occupancy permits, operating certificates and similar releases.

F. Deliver spare parts, extra stock, equipment, and similar items required.

G. Complete start up testing of systems, and instruction of the Owner’s operating and maintenance personnel. Discontinue or change over and remove temporary facilities from the site, along with construction tools, mock ups, and similar elements.

H. Complete final clean up requirements, including touch up painting. Touch up and otherwise repair and restore marred exposed finishes.

I. Coordinate temporary erosion and sedimentation control measures with permanent erosion control features to the extent practical to ensure economical, effective and continuous erosion control post-construction.

1.4 INITIAL CLOSE-OUT INSPECTION

A. On receipt of a request for inspection, Engineer will either proceed with inspection or advise Contractor of unfilled requirements.

B. Following Initial Inspection, Engineer will prepare a list of items to be completed or corrected ("Punch List").

C. Engineer will prepare a Certificate of Substantial Completion following Initial Inspection, or advise Contractor of construction that must be completed or corrected before the certificate will be issued. If a Certificate of Substantial Completion is issues, the Punch List will be attached.

1.5 WARRANTIES

A. Submit written warranties to Engineer prior to the date certified for Substantial Completion. If the Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the Work, or a designated portion of the Work, submit written warranties upon request of Engineer.

1.6 FINAL CLEANING

A. Remove all temporary controls unless otherwise indicated to remain.

B. Remove tools, construction equipment, machinery, and surplus materials.

C. Remove and properly dispose of all garbage, rubbish, litter, and other substances.

D. Clean exposed surfaces of installed equipment and similar items.

1.7 FINAL CLOSE-OUT INSPECTION

A. On receipt of a request for Final Inspection, Engineer will either proceed with inspection or advise Contractor of unfilled Punch List requirements.

B. Results of the Final Inspection will form the basis of requirements for final acceptance.

C. Engineer will repeat Final Inspection following notation of Punch List items that must be completed or corrected.

1.8 FINAL ACCEPTANCE

A. Preliminary Procedures: Before requesting final acceptance and final payment, complete the following (list exceptions in the request).

1. Submit the final payment request with releases and supporting documentation not previously submitted and accepted.

2. Submit an updated final statement, accounting for final additional changes to the Contract Sum if applicable.

3. Submit Consent of Surety to final payment, and final lean releases (lien waiver) from all suppliers, subcontractors, and second-tier subcontractors.

B. Following completion of acceptable Close-Out Inspection and receipt of all required Close-Out Submittals, Engineer will prepare a certificate of final acceptance.

1.9 RECORD DOCUMENT SUBMITTALS

A. Record Drawings: In addition to Record Drawing requirements that may be defined in individual Specification Sections, at a minimum, maintain a clean, undamaged set of blue or black line white prints of Contract Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown. Mark whichever Drawing is most capable of showing conditions fully and accurately. Where Shop Drawings are used, record a cross reference at the corresponding location on the Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date.

1. Mark record sets with red erasable pencil; use other colors to distinguish between variations in separate categories of the Work.

2. Mark new information that is important to the Owner, but was not shown on Contract Drawings or Shop Drawings.

3. Note related Change Order numbers where applicable.

4. Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on the cover of each set.

5. Upon completion of the project, submit (2) copies of Record Drawings to Engineer.

B. Record Product Data: Maintain one copy of each Product Data submittal. Mark these documents to show significant variations in actual Work performed in comparison with information submitted. Include variations in products delivered to the site, and from the manufacturer's installation instructions and recommendations. Give particular attention to concealed products and portions of the Work which cannot otherwise be readily discerned later by direct observation. Note related Change Orders and mark up of Record Drawings and Specifications.

1. Upon completion of mark up, submit complete set of record Product Data to Engineer.

C. Miscellaneous Record Submittals: Refer to other Specification Sections for requirements of miscellaneous record-keeping and submittals in connection with actual performance of the Work. Immediately prior to the date of Substantial Completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for continued use and reference. Submit to Engineer.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION – NOT USED

END OF SECTION

DIVISION 02
EXISTING CONDITIONS

SECTION 02 1401

SITE PREPARATION

PART 1 GENERAL

1.1 SUMMARY

A. Provide all labor, equipment, materials and perform all operations necessary to complete the work of this Section as indicated within the Drawings and specified herein which shall include but is not limited to the following:

B. The work includes:

1. Protection of existing site conditions to remain.
2. Protection of existing trees to remain.
3. Clearing and grubbing of vegetation, refuse, trash, and debris within the indicated limits.
4. Topsoil stripping, stockpiling and/or removal off-site, storage and return to the site.
5. Filling of voids and excavations resulting from the work.
6. Removal of pavement.
7. Removal or relocation of existing site features.
8. Demolition of miscellaneous structures, signage, fencing, light standards, and other appurtenances that interfere with construction.
9. Erosion control.

C. Related Work: The following Sections contain work related to this Section:

1. Section 01 5713 Erosion and Sedimentation Control

1.2 REFERENCES

A. Massachusetts Highway Department (MHD), Standard Specification for Highways and Bridges and the Boston Public Works Rules and Specifications for Excavation Activity Within the City of Boston, latest edition.American National Standards Institute (ANSI)

B. Code of Federal Regulations (CFR)

1. 29 CFR 1926, Safety and Health Regulations for Construction.

1.3 FEES AND PERMITS

A. Obtain and pay for all necessary permits, licenses and certificates and give all notices as required during the performance of the demolition work.

1.4 PROJECT CONDITIONS

A. Examination of Conditions

1. The Contractor shall be solely responsible for judging the full extent of work requirements involved, including but not limited to the potential need for storing materials temporarily and/or rehandling items prior to final installation.

2. Traffic: Conduct site-clearing operations to ensure minimum interference with roads and other used facilities. Do not close or obstruct roads or used facilities without permission from authorities having jurisdiction.

1.5 EXISTING SERVICES

A. All locations of existing utilities shown on the plan have been developed from existing utility records and/or above ground inspection of the site. Completeness or accuracy of locations or depth of underground utility or structures cannot be guaranteed. Contractor must verify the location and depth of all underground utilities or structures prior to the start of work.

1. Call Dig-Safe at 1-888-344-7233 seventy-two (72) hours prior to excavation and construction. Record locations on Project Record Documents from Dig-Safe field location markings.

B. Notify affected utility companies in advance and obtain written approval prior to commencing this Work.

1. Coordinate and pay all applicable fees for disconnecting, removing, capping, and plugging utility services.

C. The Contractor shall be responsible for the location, sealing, disconnection and/or protection of all existing utilities such as water, sewers, drains, electricity and telephone in accordance with the regulations of the utility concerned.

D. Place markers to indicate location of disconnected services. Identify service lines and capping locations on Project Record Documents.

1.6 MATERIALS OWNERSHIP

A. Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain on the Owner's property, demolished materials shall become the Contractor's property and shall be removed from the site and disposed of in a legal manner.

B. Historical items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to the Owner, which may be encountered during site preparation, remain the Owner's property. Carefully remove and salvage each item or object in a manner to prevent damage and deliver promptly to the Owner.

PART 2 PRODUCTS – NOT USED

PART 3 EXECUTION

3.1 GENERAL

A. Before commencing Site Preparation work, the Contractor shall meet jointly with the Owner and the Engineer in order to discuss the procedures to be utilized. Contractor shall be held responsible for any damage to all vegetation designated to remain. The Engineer will be sole judge as to damage inflicted.

1. The Engineer shall make the final determination of action required regarding any and all items indicated for removals, stockpiling, disposal, adjustment and protection.

B. The Contractor shall give the Owner adequate advance notice of his readiness to start Site Preparation work in order that the Owner can review the Contractor's plans for parking and access to the construction site.

C. The work shall be conducted with prime consideration given to the following:

1. Compliance with governing laws and building codes.

2. Safety, protection, and convenience of the public and workmen.

3. Minimization of dirt and dust proliferation.

4. Neat and accurate cutting and trimming of elements to be partially removed, subject to the Engineer's approval.

5. Avoidance of any damage to existing vegetation to remain.

3.2 UTILITIES

A. Notify all corporations, companies, individuals or local authorities owning, or having jurisdiction over, utilities running to, through or across areas to be affected by demolition operations.

B. Locate and identify existing utilities that are to remain and protect them from damage.

C. Have all discontinued utility services disconnected in accordance with the requirements of the utility owner.

3.3 PROTECTION OF EXISTING CONDITIONS

A. Protection of Existing Improvements: Provide protections necessary to prevent damage to existing improvements indicated to remain in place. In the event of damage, immediately make all repairs and replacements necessary to the approval of the Engineer at no additional cost to the Owner.

1. Protect improvements on adjoining properties and on Owner's property.

B. Before clearing begins, protect designated trees with tree protection fencing to the approximate diameter of foliage (dripline) to prevent damage to the trunk, foliage and root system by construction equipment and procedures. Do not stockpile materials within the drip line of existing trees to remain.

C. Place tree protection fencing as required protecting other plants, monuments, existing improvements and adjacent property areas that are designated to remain from damage.

D. The Contractor shall repair or replace immediately any damage to existing trees or root systems that are to remain. The Contractor shall employ an arborist licensed in the Commonwealth of Massachusetts to determine the repair and replacement needs and methods for approval by the Engineer.

E. Replace damaged shrubs and other vegetation designated to remain with the same size and species.

F. Tree-protection fencing shall be maintained for the duration of construction operations. The work shall include immediate replacement of any damaged fence.

G. Maintain protected vegetation in a healthy growing condition during construction.

H. The Contractor shall be liable for all damage and/or disturbance to existing trees and shrubs not otherwise designated for clearing and removal. When the Contractor's operations damage trees and/or other vegetation to remain, comparable replacement shall be performed as approved by the Engineer at full replacement cost to the Contractor.

3.4 DEMOLITION REQUIREMENTS

A. Conduct demolition operations in accordance with the accepted site plan and in a manner that will prevent damage to adjacent structures, utilities, pavements and other facilities to remain.

B. Cease operations immediately if any damage, settlement or other adverse effect on adjacent structures occurs. Immediately notify the Engineer and regulatory authorities.

C. Do not resume operations until conditions are corrected, damage repaired, and approval has been received from the Engineer.

D. Provide hoses and water connections. Spray water on demolition debris to minimize dust.

E. Clean adjacent structures and improvements of dust, dirt, and debris caused by demolition operations. Return adjacent areas to condition existing prior to start of work.

F. Locate demolition equipment and remove materials in a manner that prevents excessive loading to supporting walls, floors, or framing.

G. All hazardous waste removal shall be performed by a hazardous waste Contractor qualified and duly licensed by the Commonwealth of Massachusetts to remove, transport and dispose of each type of hazardous substance.

3.5 REMOVAL OF EXISTING PAVEMENT

A. All items to be removed, stockpiled or designated for reuse shall include, but are not limited to those items as indicated on the Contract Drawings.

B. Remove existing bituminous concrete pavement, concrete pavement, concrete slabs and all other pavements as indicated on the Drawings. All material shall be removed from the site and returned to a recycling plant for reuse. Said pavements and concrete materials shall not be transported to landfills, incinerators or other disposal areas.

C. Included in this item will be all saw cutting of pavement, in areas where existing pavement is to remain as indicated within the Drawings. All sawed edges of paving shall be protected from damage until new is placed against it. Existing pavement that is damaged, disturbed or settled, shall be cut back by the same method and replaced as directed by the Engineer at no additional cost to the Owner.

D. If, after the existing pavement and base materials are removed to the depth required, and the Engineer deems the underlying gravel satisfactory for pavement subbase, he shall direct the Contractor to leave the existing gravel in place and/or supplement it with additional material as required to bring the subbase to the proper depth.

3.6 PATCHING AND REPAIRS

A. Promptly patch and repair holes and damaged surfaces caused to adjacent construction by selective demolition operations.

3.7 DISPOSAL OF DEMOLISHED MATERIALS

A. General: Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.

B. Burning: Burning on Owner’s property is not permitted.

C. Disposal: Transport demolished materials off Owner’s property and legally dispose of them.

END OF SECTION

DIVISION 03
CONCRETE

SECTION 03 30 00
CAST-IN-PLACE CONCRETE

PART 1 GENERAL

1.1 DESCRIPTION

A. This Section specifies requirements for concrete cast-in-place on the site.

B. The work includes cast-in-place concrete pavement and bases.

1.2 RELATED SECTIONS

A. Sections which directly relate to the work of this Section include:

1.3 REFERENCE STANDARDS

A. References herein are made in accordance with the following abbreviations and all work under this Section shall conform to the latest editions as applicable.

1. American Concrete Institute (ACI)

   a. ACI 301 - Specifications for Structural Concrete for Building

   b. ACI 305R - Hot Weather Concreting

   c. ACI 306R - Cold Weather Concreting

   d. ACI 316R - Recommendations for Construction of Concrete Pavements and Concrete Bases

2. American Society for Testing and Materials (ASTM)

   a. ASTM 185 - Welded Wire Steel Fabric for Concrete Reinforcement

   b. ASTM 615 - Deformed and Plain Billot Steel Bars for Concrete Reinforcement

   c. ASTM C33 - Concrete Aggregates

   d. ASTM C94 - Ready-Mixed Concrete

   e. ASTM C143 - Slump of Portland Cement Concrete

   f. ASTM C150 - Portland Cement

   g. ASTM C171 - Sheet Materials for Curing Concrete

   h. ASTM C231 - Air Content of Freshly Mixed Concrete by the Pressure Method

   i. ASTM C260 - Air Entraining Admixtures for Concrete

j. ASTM C309 - Liquid Membrane-Forming Compounds for Curing Concrete

k. ASTM C494 - Chemical Admixtures for Concrete

3. Concrete Reinforcing Steel Institute (CRSI)

a. CRSI - Manual of Standard Practice.

4. Americans with Disabilities Act and State Regulations

1.4 QUALITY ASSURANCE

A. Work and materials for construction of the cement concrete walks shall conform to ACI 316R. Other cast-in-place concrete shall conform to ACI 301.

B. Work, materials, and color of the wheelchair ramp paving shall conform to applicable sections of Americans with Disabilities Act (ADA) and State standards, whichever is more stringent.

C. Dimensions, locations, and details of equipment pads, anchors, supports, and similar features shown on the drawings are approximate. Manufacturer's approved shop Drawings of equipment to be supported, anchored, or contained thereby shall be consulted for exact location, size and details.

1.5 SUBMITTALS

A. Description of methods and sequence of placement for each type of specially-finished concrete, including description of methods and sequence of placement.

B. Manufacturer's product data for the following:

1. Form release agent.

2. Concrete coloring additive.

3. Preformed joint filler.

1.6 TESTING

A. The Owner may employ an independent testing laboratory to inspect and test concrete paving and other cast-in-place concrete work.

B. Testing of materials and installed work may occur at any time during progress of the work. Rejected materials and installed work shall be removed and replaced at no additional cost to the Owner.

PART 2 PRODUCTS

2.1 PORTLAND CEMENT CONCRETE

A. Portland cement concrete shall:

1. Have a maximum water cement ratio of 0.45 conforming to ACI 316R.
2. Be Air-entrained type conforming to ASTM C94. Air content by volume shall be 6 percent $\pm$ 1 percent, and shall be tested in accordance with ASTM C260.
3. Placed with a slump not less than 3 inches nor greater than 4 inches, determined in accordance with ASTM C143.
4. Use cement conforming to ASTM C150, Type I or II. Only one color of cement, all of the same manufacturer, shall be used for the work.
5. Use fine and coarse aggregates conforming to ASTM C33.
6. Contain a water reducing agent to minimize cement and water content of the concrete mix at the specified slump. Water reducing agent shall conform to ASTM C494, Type A.
7. Contain no calcium chloride or admixtures containing calcium chloride shall be added to the concrete. No admixtures other than those specified shall be used in the concrete without the specific written permission of the Engineer in each case.

2.2 CURING MATERIALS FOR UNCOLORED CONCRETE

A. Curing shall be accomplished by the following methods:

1. Moist curing with burlap covering.
2. Curing paper, non-staining, fiber reinforced laminated Kraft bituminous product conforming to ASTM C171. Four mil polyethylene sheeting may be substituted for curing paper.
3. Curing compound, a resin-base, white pigmented compound conforming to ASTM C309, Type 2.

2.3 EXPANSION JOINTS

A. Expansion joint filler shall be pre-formed, flexible, polyethlene, closed-cell type conforming to ASTM D4819, Type II, similar to Sealtight Deck-O-Foam Joint Filler, manufactured by W.R. Meadows, Inc., Elgin, IL 60120, or approved equivalent.

1. Premolded filler shall be one piece for the full depth and width of the joint.

B. Smooth dowel shall be hot rolled plain steel dowel bonded at one end and operating in smooth close-fitting sleeve (of same material) at the other.

2.4 FORMS

A. Cylindrical Forms: Sonotube Fibre Forms, wax-impregnated strippable forms manufactured by Sonoco Products Company, General Products Division, ABS or PVC plastic reusable forms, or approved equivalent.

B. Forms for Unexposed Finish: Plywood, lumber or metal, with lumber dressed on at least two edges and one side.

C. Form Ties: Prefabricated, adjustable length galvanized steel snap-off ties, with brackets, cones, cornerlocks and other accessories as necessary.

D. Form Release Agent: Commercial formulation compounds that will not bond with, stain or adversely affect concrete.

PART 3 EXECUTION

3.1 PREPARATION OF SUBGRADE

A. The subgrade of areas to be paved shall be graded and compacted as specified in Section 32 12 12, Pavement Subbase and Base.

B. Excavation required in pavement subgrade shall be completed before fine grading and final compaction of subgrade are performed. Where excavation must be performed in completed subgrade, subbase, base, or pavement, subsequent backfill and compaction shall be performed as required by the Engineer.

C. Materials shall not be stored or stockpiled on subgrade.

D. Prepared subgrade will be inspected by the Engineer. Subgrade shall be approved for installation of the gravel base course. Disturbance to subgrade caused by inspection procedures shall be repaired.

3.2 BASE COURSE

A. Base course for concrete paving shall be pavement subbase course or gravel base materials specified in Section 32 12 12, Pavement Subbase and Base.

B. Width of base course shall extend beyond edge of the proposed pavement as shown on the Drawings.

C. Material shall be placed in lifts no more than 6 inches thick, compacted measure. Each lift shall be separately compacted to specified density.

1. Material shall be placed adjacent to wall, manhole, catch basin, and other structures only after they have been set to required grade.

2. Rolling shall begin at sides and progress to center of crowned areas, and shall begin on low side and progress toward high side of sloped areas. Rolling shall continue until material does not creep or wave ahead of roller wheels.

3. Surface irregularities which exceed 1/2 inch as measured by means of a 10 foot long straightedge, shall be regraded and recompacted.

D. Base course shall be compacted at optimum moisture content to not less than 95 percent of maximum density as determined by ASTM D1557.

E. The base course shall be kept clean and uncontaminated. Less select materials shall not be permitted to become mixed with the base course material.

3.3 FORMS

A. General: Design, erect, support, brace, and maintain formwork to support vertical, lateral, static, and dynamic loads that might be applied until concrete structure can support such loads. Construct formwork so concrete members and structures are of correct size, shape, alignment, elevation, and position. Maintain formwork construction

1. Provide Class A tolerances for concrete surfaces exposed to view.

2. Provide Class C tolerances for other concrete surfaces.

B. Construct forms to provide for openings, offsets, sinkages, keyways, recesses, moldings, chamfers, blocking, screeds, bulkheads, anchorages, and inserts, and other features required for the work. Use selected materials to obtain required finishes. Solidly butt joints and provide back-up at joints to prevent cement paste from leaking.

C. Fabricate forms for easy removal without hammering or prying against concrete surfaces. Kerf wood inserts for forming keyways, reglets, recesses, and other features for easy removal.

D. Chamfer exposed corners and edges, using wood, metal, PVC, or rubber chamfer strips fabricated to produce uniform smooth lines and tight edge joints.

E. Thoroughly clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt or other debris just before placing concrete. Re-tighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.

3.4 INSTALLING EMBEDDED ITEMS

A. General: Set and build into formwork the anchorage devices and other embedded items required for work that is attached to, or supported by, cast-in-place concrete. Use setting drawings, diagrams, instructions, and directions provided by suppliers of items to be attached.

B. Forms for Slabs: Set edge forms, bulkheads, and intermediate screen strips for slabs to achieve required elevations and contours in finished surfaces. Provide and secure units to support screed strips using strike-off templates or compacting-type screeds.

3.5 PREPARING FORM SURFACES

A. Coat contact surfaces of forms with an approved, nonresidual, low-VOC form-coating compound before placing reinforcement.

3.6 CONCRETE PLACING

A. Equipment, methods of mixing and placing, and precautions to be observed as to weather, and condition of base shall meet the requirements of ACI 316R.

B. The Engineer shall be notified of scheduled concrete placement sufficiently in advance of start of operation to allow preliminary inspection of the work, including subgrade, forms, and reinforcing steel.

C. Work shall not be performed during rainy weather or when temperature is less than 40°F (4.4°C).

D. Adjacent work shall be protected from stain and damage. Damaged and stained areas shall be replaced or repaired to equal their original conditions.

E. Existing concrete, earth, and other water-permeable material against which new concrete is to be placed shall be thoroughly damp when concrete is placed. There shall be no free water on surface.

F. Concrete which has set or partially set, before placing shall not be used. Retempering of concrete will not be permitted.

G. Concrete shall be thoroughly vibrated, or otherwise consolidated to secure a solid and homogeneous mass, thoroughly worked around reinforcement and into corners of forms.

H. When joining fresh concrete to concrete which has attained full set, latter shall be cleaned of foreign matter, and mortar laitance shall be removed by chipping and washing. Clean, roughened base surface shall be saturated with water, but shall have no free water on surface. A coat of 1:1 cement-sand grout, approximately 1/8 inch thick, shall be well scrubbed into the thoroughly dampened concrete base. New concrete shall be placed immediately, before grout has dried or set.

3.7 FINISHING

A. Concrete surfaces shall be screeded and finished true to line and grade, and free of hollows and bumps. Surface shall be dense and smooth.

1. Finished concrete surface for concrete subbases shall be woodfloated to a slightly rough surface. Surface shall not deviate more than 1/4 inch in 10 feet.

2. Finished concrete surfaces shall be wood-floated and steel troweled, or broom finished, to a uniform surface. Surface shall not deviate more than 1/8 inch in 10 feet.

B. Horizontal surfaces of concrete surfaces which will be exposed shall be given a light broomed finish, with direction of grooves in concrete surface perpendicular to length of concrete band, slab, or pad. After concrete has set sufficiently to prevent coarse aggregate from being torn from surface, but before it has completely set, brooms shall be drawn across the surface to produce a pattern of small parallel grooves. Broomed surface shall be uniform, with no smooth, unduly rough or porous spots, or other irregularities. Coarse aggregate shall not be dislodged by brooming operation.

C. Immediately following finishing operations, arises at edges and both sides of expansion joints shall be rounded to a 1/4 inch radius. Control joints to be tooled shall be scored into slab surface with scoring tool. Adjacent edges of control joint shall at same time be finished to a 1/4 inch radius.

D. Where finishing is performed before end of curing period, concrete shall not be permitted to dry out, and shall be kept continuously moist from time of placing until end of curing period, or until curing membrane is applied.

E. Sidewalk wheelchair ramps shall have a coarse broom finish perpendicular to the direction of travel.

3.8 CURING

A. Concrete shall be kept continuously damp from time of placement until end of specified curing period or cured by other methods. Water shall not be added to surface during floating and troweling operations, and not earlier than 24 hours after concrete placement. Between finishing operations, surface shall be protected from rapid drying by a covering of waterproofing paper. Surface shall be damp when the covering is placed over it, and shall be kept damp by means of a fog spray of water, applied as often as necessary to prevent drying, but not sooner than 24 hours after placing concrete. None of the water so applied shall be troweled or floated into surface.

B. Concrete surfaces shall be cured by completely covering with curing paper or application of a curing compound.

1. Concrete cured using waterproof paper shall be completely covered with paper with seams lapped and sealed with tape. Concrete surface shall not be allowed to become moistened between 24 and 36 hours after placing concrete. During curing period surface shall be checked frequently, and sprayed with water as often as necessary to prevent drying, but not earlier than 24 hours after placing concrete.

2. Concrete cured with a curing compound shall have the compound applied at a rate of 200 square feet per gallon, in two applications perpendicular to each other.

3. Curing period shall be seven days minimum.

C. Only if additional protection is absolutely required, the surface should remain uncovered after the seven day period for at least 4 days, after which time new and unwrinkled non-staining reinforced waterproof Kraft curing paper may be used.

3.9 EXPANSION JOINTS

A. Expansion joints shall be 1/2 inch wide and located where shown on the Drawings. Expansion joints shall be troweled in the concrete to required width with preformed joint filler in place. Joint filler shall extend the full depth of the slab and full length of the expansion joint.

1. For concrete walks, pavements, and pads, depth of joint filler shall be placed to form a 1-1/4 inch deep recess for sealant and backer rod below finished concrete surface.

2. Use of multiple pieces to make up required depth and width of joint will not be permitted.

3.10 CONSTRUCTION JOINTS:

A. Construction joints shall be placed whenever placing of concrete is suspended for more than 30 minutes.

1. Butt joint with dowels or thickened edge joint shall be used if construction joints occur at control joint locations.

2. Keyed joints with tiebars shall be used if the joint occurs at any other location.

3.11 CONTROL JOINTS

A. Control joints shall be tooled into the concrete slab, with 3-inch wide border and troweled edges, in pattern shown on the Drawings, or every 4 feet o.c. maximum. Joint shall be made after concrete is finished and when the surface is stiff enough to support the weight of workmen without damage to the slab, but before slab has achieved its final set.

B. Scoring shall cut into slab surface at least 1 inch, but in no case not less than 25 percent of slab depth.

3.12 COLD WEATHER CONCRETING

A. Materials for concrete shall be heated when concrete is mixed, placed, or cured when the mean daily temperature is below 40°F or is expected to fall to below 40°F within 72 hours. The concrete, after placing, shall be protected by covering, heat, or both.

B. Details of handling and protecting of concrete during freezing weather shall be subject to the approval and direction of the Engineer. Procedures shall be in accordance with provisions of ACI 306R.

3.13 HOT WEATHER CONCRETING

A. Concrete just placed shall be protected from the direct rays of the sun and the forms and reinforcement just prior to placing shall be sprinkled with cold water. Every effort shall be made to minimize delays which will result in excessive mixing of the concrete after arrival on the site.

B. During periods of excessively hot weather (95°F., or above), ingredients in the concrete shall be cooled with cold mixing water to maintain the temperature of the concrete at permissible levels in accordance with the provisions of ACI 305. Any concrete with a temperature above 95°F., when ready for placement, will be rejected.

C. Temperature records shall be maintained throughout the period of hot weather giving air temperature, general weather conditions (calm, windy, clear, cloudy, etc.) and relative humidity. Records shall include checks on temperature of concrete as delivered and after placing in forms. Data should be correlated with the progress of the work so that conditions surrounding the construction of any part of the structure can be ascertained.

3.14 PROTECTION OF CONCRETE SURFACES

A. Concrete surfaces shall be protected from traffic or damage until surfaces have hardened sufficiently.

END OF SECTION

DIVISION 11
EQUIPMENT

SECTION 11 68 00
PLAYGROUND EQUIPMENT

PART 1 GENERAL

1.1 GENERAL REFERENCE

A. This section is only a portion of the Contract Documents. All of the Contract Documents, including Division 1 General Requirements, apply to this section.

1.2 REFERENCES

A. Reference herein to any technical society, organization, group or regulation are made in accordance with the following abbreviations and, unless otherwise noted or specified, all work under this Section shall conform to the latest edition as applicable.

B. Safety Standards & Guidelines: All public playground equipment supplied shall meet all applicable provisions of the following:
   1. "Handbook for Public Playground Safety" published by the Consumer Product Safety Commission (CPSC)

C. Code of Federal Regulations (CFR).
   1. 29 CFR 1926, Safety and Health Regulations for Construction.

D. ASTM International (ASTM).
   1. ASTM F1487-01 - Standard Consumer Safety Performance Specification for Playground Equipment for Public Use
   2. ASTM F1951 - Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment.
   3. ASTM F2049 - Standard Guide for Fences/Barriers for Public, Commercial, and Multi-Family Residential Use Outdoor Play Areas.
   4. ASTM C94- Standard Specification for Ready-Mixed Concrete.

E. Americans with Disabilities Act (ADA).

F. Quality Certification: All public playground equipment supplied shall be certified to ISO 9001 and IPEMA standards.

G. Massachusetts Department of Transportation (MassDOT), Highway Division, Standard Specification for Highways and Bridges, latest edition, referred to as MHDSSHB.

H. AAB: Massachusetts Architectural Access Board regulations (521 CMR), latest edition

1.3 RELATED WORK SPECIFIED IN OTHER SECTIONS

A. Related Sections
   1. Section 32 13 13 – Portland Cement Concrete Paving
   2. Section 32 18 16 – Synthetic Play Surfacing

1.4 SUBMITTALS

A. Submit Manufacturers' Catalog Data.

B. Submit shop drawings indicating structure and equipment layout; footing quantity, size, design, and location.

C. Submit shop drawings depicting equipment locations as proposed on plan that indicates safety zones as recommended by equipment manufacturer and complying with recommendations as stated in above referenced industry standard documents.

D. Submit Shop Drawings for installation where additional details are necessary for proper installation or as requested by owner's representative.

E. Provide certification, after installation and substantial completion, by the playground installer, certifying that the equipment has been installed per the manufacturer's recommendations and instructions, and meets or exceeds all necessary safety requirements as stated in above referenced industry standard documents.

F. Submit product information and samples of finishes from full range of manufacturers' standard colors, textures, and patterns for Owner's Representative selection.

G. Manufacturer’s warranties and associated warranty registration data in Owner’s name. Submit two (2) copies of each warranty to Engineer in the manufacture’s/supplier's standard form or if there is no standard form available, in a form specified by Engineer.

1.5 QUALITY ASSURANCE

A. Equipment Installer Qualifications: An experienced and certified installer who has completed work with similar equipment, materials, and design, and to the extent similar with this project and whose work has resulted in construction with a record of successful in-service performance. Contractor to provide a list of all subcontractors and their appropriate qualification. Installer shall follow manufacturer's instructions and installation documentation for all equipment.

1.6 PRODUCT DELIVERY STORAGE AND HANDLING

A. Deliver and store products in original, unopened containers with labels intact when not being installed and protect during construction operations to prevent damage, theft, or vandalism.

B. Inspect parts within 48 hours of delivery, compare with manufacturers bill of material, and report any missing or non-conforming parts to manufacturer.

C. Damaged equipment shall not be installed. Contractor shall bear responsibility for damage to equipment until final acceptance by Owner. Any installed equipment exhibiting damage shall be replaced or repaired to the satisfaction of Engineer, and Contractor shall assume all costs related thereto.

D. The Contractor shall be responsible for timing the delivery of site improvement materials so as to minimize on-site storage time prior to installation. All stored materials shall be protected from weather, careless handling and vandalism.

E. General Contractor, Sub-Contractors, and suppliers are all individually to furnish their own equipment necessary to get workers, material, and equipment from the point of delivery at the project site to the point of use or installation within the project site.

F. Deliver materials in original sealed containers marked with name of manufacturer and identification of contents. Store materials under waterproof covers on planking clear of ground and protect from handling damage, dirt, stain, water and wind.

G. Take all necessary precautions to prevent all items from chipping, cracking, or other damage during the transportation of these materials to the project, unloading and storage on the site. Lift with wide-belt type slings wherever possible; do not use wire rope or ropes containing tar or other substances which might cause staining. If required, use wood rollers and provide cushion at end of wood slides. Damaged items will not be allowed to be installed and should any damaged items be found in constructed work, such items shall be removed immediately and replaced, and the Contractor shall assume all expenses incurred therefrom.

1.7 WARRANTY

A. 100 - Year Limited Warranty: on all PlayBooster® and PlayShaper® aluminum posts, stainless steel fasteners, clamps, beams and caps against structural failure due to corrosion/natural deterioration or manufacturing defects, and on PlayBooster steel posts against structural failure due to material or manufacturing defects.

B. 15 - Year Limited Warranty: on all Evos® and Weevos® steel arches, all plastic components (including TuffTimbers™ edging), all aluminum and steel components not covered above, Mobius® climbers, Rhapsody® Outdoor Musical Instruments, decks and TenderTuff™ coatings (except Wiggle Ladders, Chain Ladders and Swing Chain) against structural failure due to material or manufacturing defects.

C. 3 – Year Limited Warranty: On all other parts, i.e.: Pulse® products, all swing seats and hangers, Mobius climber handholds, Wiggle Ladders, Chain Ladders and ProGuard™ Swing Chain, Track Ride trolleys and bumpers, all rocking equipment including Sway Fun® gliders, belting material, HealthBeat® resistance mechanisms, Seesaws, etc., against failuredue to corrosion/ natural deterioration or manufacturing defects.

1.8 EXAMINATIONS OF CONDITIONS

A. The Contractor shall fully inform themselves of existing conditions of the site and shall be fully responsible for carrying out all work required to fully and properly execute the work of the Contract, regardless of the conditions encountered in the actual work. The installer shall examine previous work, related work, and conditions under which this work is to be performed and notify the Contractor in writing of all deficiencies and conditions detrimental to the proper completion of this work. Beginning work means installer accepts substrates, subgrades, previous work, and conditions. No claim for extra compensation or extension of time will be allowed on account of actual conditions inconsistent with those assumed.

B. The Contractor shall be solely responsible for judging the potential need for storing materials temporarily and/or rehandling items prior to final installation.

PART 2 PRODUCTS

2.1 GENERAL

A. All play equipment, posts, ladders, decks, rails, etc. shall be constructed of fully welded tubular galvanized steel with manufacturer's coatings, factory applied.

B. Fasteners shall be stainless steel.

C. All play equipment roof structures and other selected equipment shall be integrally colored, prefinished PVC, polymer, or other molded plastics.

2.2 ACCEPTABLE MANUFACTURERS

A. Refer to conceptual playground equipment layout drawings.

B. Major playground equipment manufacturers meeting the requirements of this specification will be considered. All equipment suppliers and installers must meet or exceed the qualifications outlined within this section and must demonstrate that proposed equipment is equal or equivalent to conceptual design equipment.

C. Basis of Design: BCI Burke
Childscapes
835 Plain Street
Unit #21
Marshfield, MA 02050
Phone: 781-837-6412
www.childscapes.net/

2.3 ADA ACCESSIBLE SEAT

A. Freedom Swing (or approved equal)
1. Ergonomically designed seat with high back and deep seat for full support.
2. Rotomold safety harness.
3. PVC-coated swing chain.
4. Harness latches securely in place.
5. PVC-coated stopper prevents harness from falling out of reach.
6. Seat and harness molded from compound plastic with UV-15 protection.

2.4 FREESTANDING PLAY (ALTERNATES, SEE ALTERNATE LIST)

A. Volito Swing (or approved equal)
1. Swing Seat
2. Rope Tab Swivel: Made from 6061-T6 aluminum.
3. Cable: Made of tightly woven polyester galvanized-steel cable with a polypropylene core. (Cable Connectors) 6061-T6 aluminum.
4. Swing Beam Assy.: Weldment comprised of galvanized steel tube stainless steel tabs.
5. Swing Hanger Assembly: Assembly comprised of 300 series stainless steel knuckle and yoke, stainless steel swing pin, stainless steel spring pin and oilite bushings.
6. Swing Leg: galvanized steel tube. Finish: color specified.
7. Swing Seat: Rotationally molded from U.V. stabilized linear low-density polyethylene, color specified.
8. Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

B. Welcome Sign 2-12

C. 4-Seat Rocker (or approved equal)
1. (4) Moulded Seats: Rotationally molded from U.V. stabilized linear low-density polyethylene, color specified.
2. Rocker Assy.: Weldment comprised of galvanized steel tube stainless steel tabs.
3. Swing Hanger Assembly: Assembly comprised of 300 series stainless steel knuckle and yoke, stainless steel swing pin, stainless steel spring pin and oilite bushings galvanized steel tube. Finish: color specified.
4. Heavy-duty torsion springs

5. Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

D. Dynamic Surfer (or approved equal)
1. Moulded Board: Rotationally molded from U.V. stabilized linear low-density polyethylene, color specified.
2. Coated Springs
3. Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

E. Roller Table (or approved equal)
1. Roller Table Assy.: Weldment comprised of galvanized steel tube stainless steel tabs. Finish: color specified.
2. Roller Bar Assy.
3. Fasteners: Primary fasteners shall be socketed and pinned tamperproof in design, stainless steel (SST) per ASTM F 879 unless otherwise indicated (see specific product installation/specifications).

2.5 FREESTANDING EXERCISE EQUIPMENT (ALTERNATES, SEE ALTERNATE LIST)

A. Summit Bridge 1 (or approved equal)

B. Door Knob Jam (or approved equal)

C. FIT-3161 (or approved equal)

PART 3 EXECUTION

3.1 EXAMINATION

A. Prior to equipment installation, installer shall examine the substrates and conditions under which all equipment is to be installed and notify the owner's representative in writing of conditions detrimental to the proper, complete, and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Assemble all equipment that requires pre-assembly before installation begins.

B. Install equipment at the locations agreed upon. Install level, plumb, secure and in accordance with manufacturer's recommendations, directions, and detail drawings. Cooperate with other trades. Repair and replace damaged units as directed by the owner's representative.

C. Protect installed equipment from damage, blemishes, or indication of use until completion and acceptance of the project.

3.3 CLEANING

A. Clean work, removing excess dirt and foreign materials, restoring finishes, leaving work in condition acceptable to Architect/Engineer.

B. Repair surface damage immediately following installation.

END OF SECTION 11 68 00

DIVISION 12
FURNISHINGS

SECTION 12 93 00
SITE FURNISHINGS
(ALTERNATE, SEE ALTERNATE LIST)

PART 1 GENERAL

1.1 GENERAL REFERENCE

A. This section is only a portion of the Contract Documents. All of the Contract Documents, including Division 1 General Requirements, apply to this section.

1.2 SUMMARY

A. Provide all labor, equipment, materials and perform all operations necessary to complete the work of this section as indicated within the drawings and specified herein which shall include, but is not limited to, the following:
   1. Shade Structures
   2. Benches
   3. Waste Receptacle and Recycling Receptacle
   4. Handicap Accessible Picnic Table
   5. Collapsable blooard

1.3 RELATED WORK SPECIFIED IN OTHER SECTIONS

A. Related Sections
   1. Section 03 30 00 – Site Cast-in-Place Concrete

1.4 SUBMITTALS

A. Product Data: Submit manufacturer's product data (to include, but not limited to: specifications, storage and handling requirements, installation methods and instructions) for:
   1. Shade Structures
   2. Benches
   3. Waste Receptacle and Recycling Receptacle
   4. Handicap Accessible Picnic Table
   5. Bollard

B. Shop Drawings: Prepare and submit Shop Drawings for approval by the Owner's Representative prior to ordering the listed materials. Shop drawings shall show, required sizes, dimensions, sections, profiles of units, the arrangement of and provision for jointing, anchoring, fastening, and support, and other necessary details for delivery and lifting devices and reception or installation of other work. Show in large-scale details any unique fabrication and setting requirements or any other specified areas seen as necessary or as directed by the Owner's Representative.

C. Samples: Submit manufacturer's samples of materials, finishes, hardware and colors for selection by Landscape Architect:
   1. Not used

D. Warranty: Submit Manufacturer's standard warranty for all site furnishings and fabricated items.

1.5 QUALITY ASSURANCE

A. Installation of site furnishings work shall be assigned to experienced and qualified subcontractors employing experienced workmen who will work under the full-time supervision of a qualified foreman with a minimum of five (5) years of experience on projects comparable to this project. The contractor

shall use adequate number of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for the proper performance of the work in this Section. The contractor shall demonstrate that he has successfully completed work of similar size and scope.

1.6 PRODUCT DELIVERY STORAGE AND HANDLING

A. The Contractor shall be responsible for timing the delivery of site improvement materials so as to minimize on-site storage time prior to installation. All stored materials shall be protected from weather, careless handling and vandalism.

B. General Contractor, Sub-Contractors, and suppliers are all individually to furnish their own equipment necessary to get workers, material, and equipment from the point of delivery at the project site to the point of use or installation within the project site.

C. Deliver materials in original sealed containers marked with name of manufacturer and identification of contents. Store materials under waterproof covers on planking clear of ground and protect from handling damage, dirt, stain, water and wind.

D. Take all necessary precautions to prevent all items from chipping, cracking, or other damage during the transportation of these materials to the project, unloading and storage on the site. Lift with wide-belt type slings wherever possible; do not use wire rope or ropes containing tar or other substances which might cause staining. If required, use wood rollers and provide cushion at end of wood slides. Damaged items will not be allowed to be installed and should any damaged items be found in constructed work, such items shall be removed immediately and replaced, and the Contractor shall assume all expenses incurred therefrom.

E. Stored materials shall be adequately protected against moisture by one (1) stacking in such a manner as to allow a complete circulation of air under each stack, and two (2) covering each stack, top and sides with a waterproof paper or membrane. Coverings shall remain in place at all times, when not working from the particular stack.

1.7 EXAMINATIONS OF CONDITIONS

A. The Contractor shall fully inform themselves of existing conditions of the site and shall be fully responsible for carrying out all work required to fully and properly execute the work of the Contract, regardless of the conditions encountered in the actual work. The installer shall examine previous work, related work, and conditions under which this work is to be performed and notify the Contractor in writing of all deficiencies and conditions detrimental to the proper completion of this work. Beginning work means installer accepts substrates, subgrades, previous work, and conditions. No claim for extra compensation or extension of time will be allowed on account of actual conditions inconsistent with those assumed.

B. The Contractor shall be solely responsible for judging the potential need for storing materials temporarily and/or rehandling items prior to final installation.

1.8 STANDARDS

C. Except as modified by governing code and by the Contract Documents, comply with applicable provisions and recommendations of the following:
   1. ASTM: American Society for Testing and Materials, latest edition.
      a. ASTM A36 – Carbon Structural Steel
      b. ASTM A500, Grade B – Cold Formed Welded and Seamless Carbon Structural Steel Tubing in rounds and shapes

c. ASTM F3101 – Standard Specification for Unsupervised Public Outdoor Use Equipment

2. ADA: Americans with Disabilities Act, latest edition

3. AAB: Massachusetts Architectural Access Board regulations (521 CMR), latest edition

4. Massachusetts Department of Transportation (MassDOT), Highway Division, Standard Specification for Highways and Bridges, latest edition, referred to as MHDSSHB.

PART 2 PRODUCTS

5. Shade Structures
6. Benches
7. Waste Receptacle and Recycling Receptacle
8. Handicap Accessible Picnic Table
9. Collapsable bollard

2.1 ACCEPTABLE MANUFACTURERS

D. Refer to layout and materials drawings.

E. Major furnishing manufacturers meeting the requirements of this specification will be considered. All furnishing suppliers and installers must meet or exceed the qualifications outlined within this section and must demonstrate that proposed equipment is equal or equivalent to conceptual design equipment.

F. Basis of Design: Superior Shade
Childscapes
835 Plain Street
Unit #21
Marshfield, MA 02050
Phone: 781-837-6412
www.childscapes.net/

G. Basis of Design: Dumor, Inc.
M.E. O'Brien
17 Trotter Drive
P.O. Box 718
Medway, MA 02053
Phone: 800-835-0056

2.2 SHADE STRUCTURES

A. Fabric: UV Stabilized cloth manufactured by ALNET or approved equal
1. High Density Polyethylene for Tensioned Fabric
2. Burst Strength 828 lbf
3. Fire resistant per California State Fire Marshall Reg. #F-93501 and NFPA 701-99 / ASTM E-84
4. Min temp: -77 degrees
5. Max temp: +167 degrees

B. Thread
1. Shall be 100% expanded PTFE fiber which carries a 10-year warranty that is high strength and low shrinkage.
2. Shall have a wide temperature and humidity range.
3. Abrasion resistant and UV radiation immunity.

4. Shall be unaffected by non-hydrocarbon based cleaning agents, acid rain, mildew, rot, chlorine, saltwater, and pollution.
5. Lockstitch thread – 1200 Denier or equal.
6. Chain stitch thread – 2400 Denier or equal.

C. Steel Tubing
1. All fabricated steel must be in accordance with approved shop drawings and calculations.
2. All steel is cleaned, degreased or etched to ensure proper adhesion of powder-coat in accordance with manufacturer's specifications.
3. All Steel used on this project needs to be new and accompanied by the mill certificates if requested. Structural steel tubing up to 5"-7 gauge shall be galvanized per Allied Steel FLO-COAT specifications. Schedule 40 black pipe fabrications shall be sandblasted and primed as described below.
4. All non-hollow structural shapes comply with ASTM A-36, unless otherwise noted.
5. All hollow structural steel shapes shall be cold formed HSS ASTM A-53 grade C, unless otherwise noted.
6. Plate products shall comply with ASTM A-36.

D. Powder Coating
1. All non-galvanized steel shall be sandblastedand coated with rust inhibiting primer prior to powder coating
2. Min 3.5 mil thick UV-inhibited weather resistant powder coating

E. Stainless Steel Hardware
1. Bolt and fastening hardware shall be determined based on calculated engineering loads.
2. All bolts shall comply with SAE-J429 (Grade 8) or ASTM A325 (Grade BD). All nuts shall comply with ASTM F-594, alloy Group 1 or 2.
3. Upon request, Stainless Steel hardware shall comply with ASTM A-304.
4. 1/4" galvanized wire rope shall be 7x19 strand with a breaking strength of 7,000 lbs. for shades generally under 575 sq. ft. unless requested larger by the customer. For shades over 575 sq. ft., cable shall be 5/16" with a breaking strength of 9,800 lbs. Upon request, 1/4" Stainless Steel wire rope shall be 7x19 strand with a breaking strength of 6,400 lbs. 5/16" Stainless Steel wire rope shall be 7/19 strand with a breaking strength of 9,000 lbs.
5. All fittings required for proper securing of the cable are hot dipped galvanized.

F. Concrete
1. Concrete work shall be executed in accordance with the latest edition of American Concrete Building Code ACI 318 unless specified by the governing municipality.
2. Concrete specifications shall comply in accordance with, and detailed as per plans as follows:
3. 28 Days Strength F'c = 2500 psi
4. Aggregate: HR
5. Slump: 3-5
6. Portland Cement shall conform to C-150
7. Aggregate shall conform to ASTM C-33
8. All reinforcement shall conform to ASTM A-615 grade 60.
9. Reinforcing steel shall be detailed, fabricated and placed in accordance with the latest ACI Detailing Manual and Manual of Standard Practice.
10. Whenever daily ambient temperatures are below 80 degrees Fahrenheit, the contractor may have mix accelerators and hot water added at the batch plant (See Table 1).
11. The contractor shall not pour any concrete when daily ambient temperature is below 55.

2.3 BENCHES

G. 521 Bench (or approved equal)

Manufactured by DuMor, Inc.
P.O. Box 142
Mifflintown, PA 17059
Phone: 1-800-598-4018
1. 8 ft long model

2.4 WASTE RECEPTACLE AND RECYCLING RECEPTACLE

H. Receptacle 87 (or approved equal)
Manufactured by DuMor, Inc.
P.O. Box 142
Mifflintown, PA 17059
Phone: 1-800-598-4018
a. 32 gal
b. BT Bonnet for Waste
c. RC-RECYCLED lid for Recycling

2.5 HANDICAP ACCESSIBLE PICNIC TABLE

I. 8 ft Heavy Duty Rectangular ADA Picnic Table as manfuctured by The Park Catalogue or approved equal
www.theparkcatalog.com

2.6 COLLAPSABLE BOLLARD

J. Collapsable bollard as manufactured by Traffic Guard Inc. or approved equivalent.
a. Post 30" ht. 6" x 4" x 3/8" steel tube
b. Locking System Padlock / Removable Lock Pin
c. Mount Surface / 5" Clearance
d. FinishCarbon Steel / Powder Coated color yellow.
e. Stainless steel hardware

2.7 EXAMINATION

K. Inspect all surfaces and verify that they are in proper condition to receive the work of this Section. Verify that prepared openings are ready to receive the work of this Section and opening dimensions are as indicated on the shop drawings. Verify that all blocking is set in place and secure.

L. Submit details of proposed departures due to field conditions or other causes to the Landscape Architect for approval.

M. Beginning of installation means acceptance of existing project conditions.

2.8 PROTECTION

N. Protect finishes from damage during construction period with temporary protective coverings. Remove protective covering at the time of Substantial Completion.

O. Restore finishes damaged during installation and construction so no evidence remains of correction work. Return items that cannot be refinished in the field to the shop; make required alterations and refinish entire unit; or provide new units.

2.9 CLEANING

P. Clean work, removing excess dirt and foreign materials, restoring finishes, leaving work in condition acceptable to Architect/Engineer.

Q. Repair surface damage immediately following installation.

END OF SECTION

DIVISION 31
EARTHWORK

SECTION 31 01 30
EARTHWORK

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. This Section is only a portion of the Contract Documents. All of the Contract Documents, including Division 1 General Requirements, apply to this Section.

1.2 DESCRIPTION

A. Provide facilities, labor, materials, tools, equipment, appliances, transportation, supervision, and related work necessary to complete the work specified in this section, and as shown on the Drawings.

B. The work of this section includes but is not necessarily limited to:

1. Excavation, fill, and backfill, including compaction as indicated or required, to the lines and grades indicated on the Drawings.

2. Excavation and disposal of unsuitable or excess materials off-site, unless other on-site locations are allowed. Excavation shall include removal and satisfactory disposal of all unclassified material encountered throughout the site.

3. Rough grading, including placement, moisture conditioning and compaction of fills and backfills.

4. Placement of base and subbase course materials under structures, slabs and footings, including compaction. Placement of base and subbase course materials under pavement is located under Section 32 12 12 – Pavement Subbase and Base.

5. The removal, hauling and stockpiling of suitable excavated materials for subsequent use in the work. Stockpiling shall include protection to maintain materials in a workable condition at no additional cost to the owner.

6. Rehandling, hauling and placing of stockpiled materials for use in refilling, filling, backfilling, grading and such other operations at no additional cost to the owner.

7. Protection of existing buildings, pavements, and utilities to remain at no additional cost to the owner.

8. Furnishing and installing all sheeting, shoring, and bracing of structural and trench excavations at no additional cost to the owner.

9. Providing products in sufficient quantities to meet the project requirements.

10. Obtaining all required permits, licenses, and approvals of appropriate municipal and utility authorities, prior to commencing the work of this Section, and pay costs incurred there from.

C. Contractor shall be responsible for notifying all owners of affected utilities and for contacting Dig Safe at least 72 hours prior to excavation.

1.3 RELATED SECTIONS

A. Carefully examine all of the Contract Documents for requirements which affect the work in this section. Other specification sections which directly relate to the work of this section include, but are not limited to, the following:

1. Section 02 41 01-Site Preparation
2. Section 31 25 00-Erosion and Sedimentation Control
3. Section 32 92 00-Turf and Grasses

1.4 DEFINITIONS

A. Unacceptable material is soil material that contains organic silt, peat, vegetation, wood or roots, stones or rock fragments over 6 inches in diameter or exceeding 40 percent by weight of the backfill material, porous biodegradable matter, loose or soft fill, construction debris, or refuse, or material which cannot be compacted to the specified or indicated density. Percentage of rock shall be determined by the Contractor's independent testing laboratory. Acceptable material is material that is not "unacceptable material", classified is as defined herein.

B. Surplus material is excavated acceptable material that cannot be utilized elsewhere on the site as backfill or embankment fill, or as otherwise directed by the Engineer.

1.5 EXCAVATION CLASSIFICATIONS

A. Excavation: Excavation shall be unclassified and no consideration will be given to the nature of the materials, with the exception of rock and hazardous materials. Excavation shall comprise and include the satisfactory removal and disposal of all materials encountered regardless of the nature of the materials and shall be understood to include, but not limited to, earth, fill, foundations, pavements, curbs, piping, railroad track and ties, cobblestones, footings, bricks, concrete, previously abandoned drainage structures and utility structures abandoned and not removed by the utility and debris.

B. Rock Excavation: Rock is defined for payment purposes as stone or hard shale in original ledge, boulders over two cubic yards ($2yd^3$) in volume in open areas and one cubic yard ($1yd^3$) in volume in trenches, and masonry or concrete that cannot be broken or removed by normal job equipment (power shovels, scoops, or D-8 bulldozers with ripper attachment) without the use of explosives or drills. The classification does not include materials that can be removed by means other than drilling and blasting or drilling and wedging but which, for reasons of economy in excavating, the Contractor prefers to remove by drilling and blasting. The word "trenches" shall mean excavation having vertical sides the depths of which exceed the width, made for drain, sewer, water, and gas pipes; electric and steam conduits; and the like.

C. Hazardous Waste

1. The Contractor shall be familiar with the State Department of Environmental Protection (DEP) Hazardous Waste Regulations 310 CMR 30.00 and the Massachusetts Contingency Plan (MCP) 310 CMP 40.00 when conducting earthwork operations.
2. In general, a hazardous waste (contaminated with oil or hazardous materials) is a waste or combination of wastes which, because of its quantity, concentration or physical, chemical or infectious characteristics, may cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or pose a substantial present or potential hazard to human health, safety, or welfare, or to the environment when improperly stored, treated, transported, or disposed of, or otherwise managed. (Additional criteria and characteristics to determine if a waste is hazardous are contained in 310 CMR 30.111, 30.112 and 30.120 through 30.125).

1.6 LAWS AND REGULATIONS

A. Work shall be accomplished in accordance with federal state and local laws and regulations of local, county and state agencies and national or utility company standards as they apply.

1.7 QUALITY ASSURANCE

A. Through the Engineer the Owner may retain and pay for the services of a Geotechnical Consultant to perform on-site observation and testing during the following phases of the construction operations. The scope of services will be determined by the Architect/Engineer and Owner and the Geotechnical Consultant. The Owner reserves the right to modify or waive Geotechnical Consultant services.

B. The Geotechnical Consultant's presence does not include supervision or direction of the actual work by the Contractor, his employees or agents. Neither the presence of the Geotechnical Consultant, nor any observations and testing performed by him, nor any notice of failure to give notice shall excuse the Contractor from defects discovered in his work.

C. Costs related to retesting due to failures shall be paid for by the Contractor at no additional expense to Owner. The Contractor will pay for all additional costs for re-testing.

1.8 SUBMITTALS

A. Submit an analysis of each type of off-site fill and aggregate materials that are to be used at the, a minimum of one week prior to delivery to the site. Use of these proposed materials by the Contractor prior to testing and approval or rejection shall be at the Contractor's risk.

B. The Engineer will be responsible for the approval or rejection of the suitability of all materials.

C. Submit the name of each material supplier and specific type and source of each material. Any change in source throughout the job requires approval of the Engineer.

D. For use of fabrics or geogrids, submit manufacturer's literature for approval by the Engineer.

1.9 COORDINATION

A. Prior to start of earthwork the Contractor shall arrange an on-site meeting with the Engineer for the purpose of establishing the Contractor's schedule of operations and scheduling observation and testing procedures and requirements.

B. As construction proceeds, the Contractor shall be responsible for notifying the Engineer prior to the start of earthwork operations requiring observation and/or testing.

1.10 TOLERANCES

A. Construct finished non-paved surfaces to plus or minus 1 inch of the elevations indicated. Complete embankment slopes to plus or minus six horizontal inches of the slope line (toe or tip) shown. Maintain the moisture content of fill materials as it is being placed within plus or minus two percent of the optimum moisture content of the material as determined by the laboratory tests herein specified.

1.11 APPROVALS

A. No earthwork materials will be accepted on the jobsite without written approval from the Engineer.

1.12 OTHER SPECIFICATIONS

A. The requirements of the Massachusetts Highway Department Standard Specification for Highways and Bridges, are also made part of these Specifications.

PART 2 PRODUCTS

2.1 MATERIALS

A. Crushed Stone shall conform to MHDSSHB Specification Section M2.01.1.

B. Dense Graded Crushed Stone shall conform to MHDSSHB Specification Section M2.

C. Gravel Borrow Base shall conform to MHDSSHB Specification Section M1.03.0 C.

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

A. The Contractor shall control the grading so that ground is pitched to prevent water from running to excavated areas, eroding slopes, damaging other structures, or adjacent properties.

B. Control dust during the course of the contract.

C. Construction Traffic. Disperse travel paths of traffic and construction equipment over entire width of compacted surfaces to aid in obtaining uniform compaction. Protect exposed soil layers with high moisture content from excessive wheel loads.

D. Use of Materials Found of Site

1. Suitable excavated materials shall be used for embankment, backfill, or any other purpose as directed and the material shall be placed and compacted in a manner conforming to the specifications for the particular type of work required at no additional cost to the Owner.

2. Suitable material that cannot be readily placed shall be stockpiled at the jobsite in an area designated by the Engineer and used in the manner and purpose described above or removed from the site. All work necessary to stockpile and re-handle suitable material will be at no additional cost to the Owner and will be included in the Contract price. If the Contractor desires to store suitable material off the jobsite, or remove suitable material from the jobsite, written permission shall be obtained from the Engineer.

3. No excess soil is to be removed from the site unless approved by the Engineer.

4. Do not excavate or remove any material from within the site which is not within the excavation, as indicated, without written authorization from the Engineer.

E. Salvaging Topsoil. Salvage topsoil within the neat lines as indicated, or as otherwise designated by the Engineer, and stockpile at the jobsite at locations approved by the Engineer. Prevent topsoil from contamination by other materials, and provide adequate drainage and erosion protection. Clear, grub, and rough-grade storage areas so that the maximum amount of stockpiled material will be available for reuse.

F. Stockpiling of Excavated Material. Establish excavated material stockpiles on site only in locations where they will not interfere with the progress of the work and only as approved by the Engineer.

G. Surplus and/or Unsuitable Material. Stockpile and dispose of excavated materials which are in excess and/or are determined to be unsuitable for topsoil, embankment and backfill, at no additional expense to the Owner. The Contractor shall assume that the material is urban fill and meets the criteria for disposal in lined or unlined Massachusetts landfills. When approved by the

Engineer, such material may be disposed of at designated locations within the site. Offsite disposal facilities and any soil testing associated with offsite disposal is to be provided by the Contractor and approved by the Engineer.

H. Unfavorable Weather. Do not place, spread, roll or compact fill material that is frozen or thawing, or during unfavorable weather conditions. If interrupted by heavy rain or other unfavorable conditions, do not resume until ascertaining that the moisture content and density of the previously placed soil are as specified.

I. Maintenance of Excavation, Slopes and Embankments.

1. Excavate and remove material outside the limits of excavation which in the opinion of the Engineer, is unsuitable and constitutes potential slides, and material which comes into excavations for any reason including the driving of piles therein.

2. Maintain slopes and embankments until final completion and acceptance of the work. Promptly repair slides, slip outs, washouts, settlements, and subsidence which occur for any reason, and refinish the slope or embankment to the original lines and grades or as required by the Engineer.

3. Provide earth retention systems as required by federal, state and local regulations. Shoring and bracing of trenches and other excavations shall be in accordance with the latest OSHA Standards and Interpretation, Subpart P – Trenches and Shoring, and to all other applicable codes, rules and regulations of the federal, state and local authorities.

J. Hazardous Material:

1. The Contractor shall immediately halt soil movement activities and notify the Architect/Engineer and Owner if visual, olfactory or other evidence suggests that soils are contaminated with oil or hazardous materials.

2. Any contaminated soils shall be managed and handled in compliance with the referenced state/federal regulations, guidelines and policies.

3.2 OBSTRUCTIONS NOT INDICATED AND NOT VISIBLE

A. All available information was used to establish the location of pipes, drains, structures, and utilities, as shown on the Drawings. However, accuracy and completeness of such drawings cannot be guaranteed. Therefore, if the Contractor encounters such items within the indicated limits of excavation, which will be damaged if work is to continue or which will cause delays, notify the Engineer immediately so the obstruction can be addressed and documented for payment, as authorized by the Owner.

3.3 TEST PITS

A. Test pits may be ordered by the Engineer during the course of contracted work, to locate existing pipes, drains, structures, or utilities at no additional costs.

3.4 GENERAL EXCAVATION REQUIREMENTS

A. Excavate to the lines and grades indicated. Exercise care to preserve the material below and beyond the lines of excavation. Where excavation is carried out, through error, below indicated grade or beyond the lines of excavation, backfill to the indicated grade and compact with approved fill at no additional cost to the Owner, and at the direction of the Engineer.

B. Limits of the excavation shall allow for adequate working space for installing forms and as required for safety of personnel. Cut excavations in solid rock accurately to the neat lines indicated, or, if not indicated, to the width of the trench.

C. Excavation for the convenience of the Contractor shall conform to the limits acceptable to the Engineer and shall be at no additional cost to the Owner. Contractor shall not over excavate below proposed design grades for the purpose of obtaining borrow for use off-site.

D. When any excavation is extended beyond the limits indicated, backfill and compact the additional excavated area with material indicated to be under the pipe, conduit, or structure which was being excavated for, at no additional cost to the Owner.

E. Limit the length of trench open at any one time as to eliminate interference with traffic and the operations of others and to reduce conditions dangerous to personnel, equipment and existing site improvements, all according to site conditions.

F. Excavate by use of hand tools when within 2 feet of existing pipes, conduits, or other structures.

3.5 TRENCH EXCAVATION

A. Excavate trenches for utilities, drain and sewer pipes, and utility structures by the open cut method except where tunneling or jacking is indicated or approved by the Engineer.

B. Excavate trench to permit pipe, conduit or structure to be laid or constructed at the elevation, slope and depth of cover indicated on the Drawings, and at uniform slopes between indicated elevations. Make trenches no wider than indicated and do not widen by scraping or loosening materials from the sides during construction or operation of equipment in or adjacent of the trench or by surcharging excavation with material piled next to the trench. Keep sides firm and undisturbed until backfilling and compaction has been completed.

C. When pipe, conduit or structures are to be laid in gravel or crushed stone bedding, excavate trench by machine to indicated aggregate subgrade. Compact any disturbed material at the bottom of the trench to 95 percent prior to placing the bedding material.

D. When pipe, conduit, or structures are to be laid directly on the bottom of the trench, do not excavate the lower part of the trenches to subgrade by machinery. Remove last of material by use of hand tools and form a flat or shaped bottom, true to grade, so that pipe or structure will have a uniform and continuous bearing.

E. In paved areas, saw cut pavement on the neat lines at the width indicated for the trench. After compacting the backfill, restore pavement to a condition equivalent to that existing at the start of construction. Restore pavement damaged outside the neat lines at no additional cost to the Owner.

F. Trench Excavation in Fill:

1. Place and compact to 95 percent of maximum density indicated fill material to top of proposed fill or to a minimum height of 1 foot above top of pipe or structure, whichever is less, when pipe or structure is to be laid in fill.

3.6 ROCK EXCAVATION

A. Cross Sectioning: When rock is encountered during excavation, it shall be uncovered and exposed, and the Engineer shall be notified in writing by the Contractor before removal work proceeds. The areas in question shall then be measured, and payment shall be determined. Excavation of material in question before agreement by the Engineer as to the character of the material, or failure to notify the Engineer or to take measurements will forfeit the Contractor's right to payment for rock excavation. The quantity of rock to be removed shall be based on the limits established below. Measurements shall be made by a Registered Surveyor, paid for by the Contractor, and approved by the Engineer.

B. Measurement: Excavation of rock, as defined in paragraph 1.04B, if ordered in writing by the Engineer with the prior written approval of the Owner, measured in place within the Contract limits as defined on the Plans or in any duly authorized modifications thereto. Measurement for rock excavation will be made for:

1. Foundations within the limits of the concrete lines as defined by the working plans or by duly authorized modifications thereto, plus twelve inches (12") outside the vertical concrete lines and twelve inches (12") below base.
2. Pipe trenches to a depth of six inches (6") below the bottom of the bell and for a width equal to the inside diameter of the pipe, plus fifteen inches (15") beyond the inside diameter on each side, provided that overlapping computed volumes of any ledge or boulder excavation shall be paid for only once
3. Paved areas to the underside of the respective subbase for such areas.
4. Lawns and planting areas to a depth of twenty-four (24") below finished grade.
5. Any foreseen rock or boulder encountered, which must be removed for construction of the work defined on the plans or in modification thereto, shall be measured in its original position to the limits of clearly defined vertical construction lines and to the depth required for the defined construction; payment will be at the unit prices stated above.

C. Blasting:

1. Blasting is not allowed

3.7 UNACCEPTABLE SUBGRADE

A. If unacceptable material (defined in paragraph 1.03A) is encountered below or at the subgrade which excavation was indicated to be taken to, remove such materials and dispose of it as specified herein. Limits of removal shall be as directed by the Engineer. After removal of unsuitable materials, backfill with crushed stone or gravel borrow, and compact to specified density requirements. For such work not caused by the Contractor's operations or lack of surface drainage control, the Contractor shall be paid as Extra Work, as approved by the Architect/Engineer and Owner.

B. Where subgrade has been softened or eroded by flooding, equipment traffic or placement during unfavorable weather, it shall be considered "unacceptable material" and handled in accordance with paragraph A above, at no additional cost to the Owner.

3.8 SUBGRADE PREPARATION AND PROTECTION

A. General Requirements

All subgrade areas shall be made ready for fill by removal of all organic material, topsoil, loose fill, unsuitable soils and deleterious materials, as directed by the Engineer.

B. Proof Rolling Subgrades

Prior to placement of fill, proof roll natural ground above groundwater levels by making a minimum of two passes with approved compaction equipment.

C. Rock Subgrades

1. Subgrades outside building area may have a maximum 2-foot zone of overblast rock provided that:
   a. Loose rock is covered with suitable layer of crushed stone or choke stone; and
   b. Prior to placing crushed stone or choke stone, the area is rolled with at least four passes of a heavy vibratory roller.
2. Bottom of rock excavations for support of foundations shall be cleaned of all loose materials.
3. Rock surface for footings shall have a maximum slope of 4 horizontal to 1 vertical.

4. Rock excavations for footings carried below design grades shall be backfilled by placement of concrete with same strength as footing at the Contractor's cost. At the discretion of the structural engineer, footings could be dropped below design elevation onto competent rock.

3.9 PLACEMENT AND COMPACTION OF MATERIALS

A. General Requirements

1. The soils testing laboratory will determine the optimum moisture content to achieve the maximum dry density for all soils specified or indicated to be compacted to a percentage of its maximum dry density.
2. Unless other material is indicated or specified, place excavated acceptable material for backfilling trenches and around structures and filling for embankments. The composition of these materials and tests performed to determine moisture-density relationships will govern both their acceptability for backfill and method best suited for their placement and compaction. If sufficient excavated acceptable material is not available from the excavations, provide backfill material of ordinary borrow, or as otherwise directed by the Engineer.
3. Provide adequate pumping and drainage facilities to keep the excavation area dry from groundwater and/or surface runoff so that it does not adversely affect construction procedures or cause excessive disturbance of underlying natural ground.
4. Compaction by puddling or jetting is prohibited.
5. Protect fill area by grading to drain and providing a smooth surface, which will readily shed water. Grade the surface of the areas in such a manner as to prevent ponding of surface runoff water in areas to receive compacted fill.
6. Do not place frozen fill. Do not place fill on frozen ground.
7. Placement of fill shall not begin prior to observation and approval of subgrade conditions by Engineer.
8. To the extent that is practicable, each layer of fill shall be compacted to the specified density the same day it is placed. Fill shall be placed in horizontal layers. Where the horizontal layer meets a natural rising slope, the layer shall be keyed into the slope by cutting a bench during spreading of preceding lift.
9. Prior to backfilling between foundation wall and excavation limits, remove unsuitable material, including rubbish, organic materials or other debris.
10. Do not commence filling operations until Engineer and/or Architect have observed conditions.
11. Protect foundations, footings, foundation waterproofing, and site utilities during backfilling. Repair damage at no cost to Owner.
12. Backfill shall not be placed against masonry, concrete or walls until they are braced or have cured sufficiently to develop strength necessary to withstand, without damage, pressure from backfilling and compacting operations.
13. Provide shoring, sheeting, and/or bracing of excavations as required to assure complete safety against collapse of the earth at the side of excavations. Alternatively, lay back excavations to a stable slope.
14. Upon completion of the work, the final ground surface shall be left in a firm, unyielding, true, uniform condition, free from ruts. Repair disturbed areas caused by equipment traffic at no cost to Owner.

B. Equipment

1. Compaction equipment used in open areas where space permits shall consist of vibratory rollers weighing at least 10,000 pounds.

2. Compaction equipment for fill against foundation walls and in other confined areas shall be accomplished by means of drum-type, power-driven, or by hand-guided vibratory plate compactors.

C. Compaction

1. Compaction Requirements

a. The degree of compaction is expressed as a percentage of the maximum dry density at optimum moisture content as determined by ASTM Test D1557, Method C. The compaction requirements are as follows:

Area	**Minimum Degree of Compaction**
Pavement base and subbase courses	95%
General fill below pavement subbase	95%
Trench backfill (inside bldg.)	95%
Trench backfill (outside bldg.):	
- Below pipe to spring line	95%
- Spring line to 1 ft. above pipe	95%
- 1 ft. above pipe to pavement subbase or finish grade	95%
Landscape areas	90%

Compactions percentages are based on the laboratory derived Maximum Density values.

2. Moisture Control

a. Discontinue backfilling and compaction from November to April (wet season) unless the Contractor demonstrates successful moisture and compaction control techniques to achieve the indicated or specified density requirements.

b. Fill material that is too wet for proper compaction shall be harrowed, or otherwise dried to a proper moisture content to allow compaction to the required density. If fill cannot be dried within 24 hours of placement, it shall be removed and replaced with drier fill at his expense.

c. Fill material that is too dry for proper compaction shall receive water uniformly applied over the surface of the loose layer. Sufficient water shall be applied until the optimum moisture content is reached, as determined by the soil testing laboratory, as specified in paragraph 3.09.A.1.

d. In no case shall fill be placed over material that is frozen. No fill material shall be placed, spread or rolled during unfavorable weather conditions. When work is interrupted by heavy rains, fill operations shall not be resumed until the moisture content and the density of the previously placed fill are as specified.

e. The Contractor shall continue to compact until the indicated or specified density requirements are achieved.

3. Placement and Lift Thickness of Material

Distribute material such that stones and lumps do not become nested, causing voids between stones. Distribute such that voids are completely filled with fine materials regardless of compaction method.

Deposit and spread material in uniform parallel layers not to exceed 12 inches (12") in thickness when utilizing heavy compaction equipment, and 6 inches (6") when utilizing light hand-operated compaction equipment.

D. Trench backfill and compaction:

1. Begin backfilling and proceed until completed after the pipes and conduits have been laid, joints have acquired maximum degree of hardness, pipelines and conduits have successfully passed tests and inspections required under their applicable specification sections, and concrete or masonry within the trench have reached their design strength to support all loads.

2. Utilize compaction devices which will not damage the pipe, conduit, or structure within the trench.

3. Compact material around circumference of pipe by hand tamping 6 inch layers of indicated material in the area between the trench wall and the pipe to meet density requirements stated herein.

4. Compact material above the pipe by tamping or mechanical means if trench width is wide enough to accommodate the compaction equipment and if the load from the equipment does not damage the pipe.

E. Fill and Backfill Under and Around Structures:

1. Use gravel borrow, crushed stone, or fine aggregate for fill and backfill material under structures. Place and compact material in 6 inch lifts to the specified degree of compaction as specified herein.

2. Use excavated acceptable material (as defined in paragraph 1.03A) to backfill around structures, except as otherwise indicated on the Drawings or specified herein. Backfill around retaining walls shall be crushed stone or gravel, as indicated on the Drawings.

3. Do not place backfill against or on concrete structures until they have attained the strength capable of withstanding the loading to which they will be subjected.

4. Place material evenly around structures to maintain equal soil pressure on all sides of structure.

3.10 OBSERVATION AND TESTING

A. The Owner may retain a Geotechnical Consultant to perform on-site observation and testing during the earthwork phase of the construction operations. The Contractor shall allow the Geotechnical Consultant sufficient time to make necessary observations and tests. The services of Geotechnical Consultant shall include, but not be limited to, the following:

1. Observation during excavation and dewatering of building and controlled fill areas.

2. Observation during backfilling and compacting operations within that area defined as building area or controlled fill area and other areas as appropriate.

3. Laboratory testing and analysis of fill materials specified, as required or the testing of excess soils generated during the course of the work.

4. Observation of construction and performance of water content, gradation and compaction tests at a frequency and locations that he shall select. The results of these tests will be submitted to the Owner, on a timely basis so that action can be taken to remedy indicated deficiencies. During the course of construction, the Geotechnical

Consultant will advise the Owner in writing if at any time in his opinion or failure to give notice, shall excuse the Contractor from defects discovered in his work.

3.11 DISPOSAL OF SURPLUS, UNACCEPTABLE OR HAZARDOUS MATERIAL

A. No excavated material shall be removed from the site or disposed of by the Contractor unless approved by the Engineer.

B. Surplus excavated acceptable materials (as defined in paragraph 1.03B) shall be used to backfill normal excavations in rock or to replace other materials unacceptable for use as backfill or as otherwise directed by the Engineer. Upon written approval of the Engineer, surplus excavated materials shall be neatly deposited and graded so as to make or widen fills, flatten side slopes, or fill depressions; or shall be neatly deposited for other purposes as indicated by the Architect/Engineer and Owner, within its jurisdictional limits; all at no additional cost to the Owner.

C. Surplus excavated material not needed as specified above shall be hauled away and disposed of by the Contractor at no additional cost to the Owner.

D. Disposal of all unacceptable, surplus, and hazardous materials shall be in accordance with all applicable local, state and federal regulations.

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DIVISION 32
EXTERIOR IMPROVEMENTS

SECTION 32 10 00
BASES, BALLASTS, AND PAVING

PART 1 GENERAL

1.1 GENERAL REFERENCE

A. The work of this Section is integral with the whole of the Contract Documents and is not intended to be interpreted outside that context.

1.2 DESCRIPTION OF WORK

A. Provide all labor, materials, equipment, services and accessories necessary to install granular pavement subbase, base materials, bituminous concrete roadway, temporary trench, parking area, and driveway pavements., complete and functional, as indicated in the Contract Documents and as specified herein.

B. The principal work of this Section includes, but may not be limited to, the following:

1. Fine grading and compaction of pavement subgrade.

2. Furnishing, placing and compacting of subbase and base materials.

3. Preparation for bituminous concrete paving.

4. Bituminous concrete overlays over existing pavement, including surface preparation, and leveling courses, tack coating and all other associated operations required.

5. Temporary trench pavements.

6. Sawcutting existing pavements.

7. Pavement markings.

1.3 RELATED WORK SPECIFIED ELSEWHERE

A. Contract Drawings and Supplemental and General Conditions in the Contract Specifications.

1.4 REFERENCE STANDARDS

A. All work done under this contract shall be in conformance with the Massachusetts Highway Department's MHD Standard Specifications for Highways and Bridges dated 1988, the English Supplemental Specifications dated June 15, 2012 or latest edition, and the Standard Special Provisions dated July 2, 2012 or latest edition; the 2012 Construction Standard Details, the 1996 Construction and Traffic Standard Details (as relates to traffic standard details only); the 2009 Manual on Uniform Traffic Control Devices with Massachusetts Amendments; the 1990 Standard Drawings for Signs and Supports; the 1968 Standard Drawings for Traffic Signals and Highway Lighting; the latest edition of American Standard for Nursery Stock; and the Contract Drawings and these Contract Specifications.

B. References herein are made in accordance with the following abbreviations and, all work under this Section shall conform to the latest editions as applicable.

MS-2: Mix Design Methods for Asphalt Concrete and Other Hot-Mix Types The Asphalt Institute (AI).

MS-3: Asphalt Plant Manual, The Asphalt Institute (AI)

Hot Mix Asphalt Paving Handbook,US Army Corps of Engineers, UN-13 (CE MP-ET)

MS-19: Basic Asphalt Emulsion Manual, The Asphaltic Institute (AI)

ASTM D946 Specification for Penetration - Graded Asphalt Cement for use in Pavement Construction

1.5 WEATHER LIMITATIONS

A. Construct paving when atmospheric temperature is above 40°F and when base is dry.

B. The required temperature of the bituminous concrete mixture, within a tolerance of plus or minus 15°F, when delivered at the site, will be governed by the temperature of the base upon which the mix is placed, as follows:

Base Temperature in Degrees F	Required Material Temperature in Degrees F For Course Thickness in Inches			
	1	1-1/2	2	3 and Greater
35-40	-	305	295	280
41-50	310	300	285	275
51-60	300	295	280	270
61-70	290	285	275	265
71-80	285	280	270	265
81-90	275	270	265	260
91 & over	270	265	260	255

C. Tack coat shall be applied only when the ambient temperature is above 40°F, and when the temperature has been above 35°F for 12 hours immediately prior to application. Do not apply when base is wet, contains excess moisture, or during rain.

1.6 SUBMITTALS

A. Design Mix: Before any paving is constructed, submit actual design mix to the Engineer for review and approval. Design mix submittal shall follow the format indicated in the Asphalt Institute Manual MS-2, Marshall Stability Method; and shall include the type/name of the mix, gradation analysis, grade of asphalt cement used, Marshall Stability (lbs.), flow, and effective asphalt content (percent).

B. Material Certificates: Submit materials certificate signed by the material producer and Contractor, to the independent testing laboratory certifying that materials comply with, or exceed, the requirements herein.

1.7 AS-BUILT DRAWINGS

A. Submit three (3) copies of As-Built Drawings upon completion and acceptance of work.

B. As-Built Drawings shall be complete and shall indicate the true measurement and location, horizontal and vertical, of all new drainage system construction. As-Built drawings shall include a minimum of three ties showing the distance to each catch basin and manhole from fixed permanent objects. As-Built drawings shall also contain any additional information required by the municipality, and shall be stamped with the seal of a Licensed Land Surveyor and Licensed Professional Engineer.

1.8 DELIVERY, STORAGE AND HANDLING

A. Granite and precast curb units shall be adequately protected from damage during transit to the site.

B. Curbing shall be protected against staining, chipping, and other damage. Cracked, badly chipped, or stained units will be rejected and shall not be employed in the work.

1.9 COORDINATION

A. The Contractor shall coordinate paving with all other work, especially underground utility construction, to prevent covering up unfinished or uninspected work and loss of time or labor by improper scheduling. Any repaving required shall be done at no additional cost to the Owner.

1.10 PAVEMENT WITHIN PUBLIC RIGHT-OF-WAY

A. The construction of all pavements within public rights-of-way shall be in accordance with the rules, regulations and requirements of the Public Agency having control and ownership of such rights-of-way.

1.11 GUARANTEE

A. All pavement placed shall be maintained by the Contractor for a period of one year. During this period, all areas have settled or are unsatisfactory for traffic shall be replaced at no additional cost to the Owner.

1.12 WARRANTIES

A. Attention is directed to provisions of the CONDITIONS OF CONTRACT and applicable parts of Division 1 regarding guaranties and warranties.

B. Manufacturers shall provide their standard guaranties for work specified in this Section. However, such guaranties shall be in addition to and not in lieu of all other liabilities which manufacturers and Contractor may have by law or by other provisions of the Contract Documents.

PART 2 PRODUCTS

2.1 MATERIALS

A. Gravel Subbase and Base:

1. Gravel borrow shall conform to the requirements of Section 31 01 30.

B. Crushed Stone Subbase and Base:

2. Crushed stone for subbase shall conform to the requirements of Section 31 01 30.

C. Mineral Aggregate:

1. Coarse Aggregate shall be clean, crushed rock free from dirt and other objectionable material and shall have a percentage of wear, as determined by the Los Angeles Abrasion Test (AASHTO-T96), of not more than 30.

2. Fine Aggregate:

The fine aggregate shall consist of one of the following:

a. 100% Natural sand,
b. 100% Stone sand,
c. A blend of natural sand and stone sand.

The fine aggregate, as delivered to the mixer, shall meet the following gradation requirement:

Sieve	Percent Passing Minimum	Maximum
3/8 inch	95	100
No. 8	70	95
No. 50	20	40
No. 200	2	16

In the fine aggregate sieve analysis (passing No. 8), the amount between two successive sieves (No. 16, 30, 50, and 100) shall not exceed 33 percent of the fine aggregate total.

3. The use of reclaimed asphalt pavement in new bituminous pavement will not be permitted.

D. Asphalt Cement: Comply with AASHTO M-226/ASTM D 3381; Table 2 for grades AC-10, AC-20, or AC-30, AR-8000, viscosity grade, depending on local mean annual air temperature, as follows:.

Temperature Condition	Asphalt Grades
Cold, mean annual air temperature < 7 degrees C) 45 degrees F)	AC-10 85/100 pen.
Warm, mean annual air temperature between 7 degrees C (45 degrees F) and degrees C (75 degrees F)	AC-20 60/70 pen.
Hot, mean annual air temperature > 24 degrees C (75 degrees F)	AC-30

Final acceptance of the proper grade of AC will be made by the Engineer.

E. Tack Coat: Emulsified asphalt; AASHTO M-140/ASTM D 997 or AASHTO M 208/ASTM D 2397, SS-1h, CSS-1, or CSS-1h, diluted with one part water to one part emulsified asphalt.

F. Mineral Filler: Rock or slag dust, Portland cement, or other inert material complying with AASHTO M-17/ASTM D 242.

G. Asphalt-Aggregate Mixture: The design mix shall have a minimum stability based on a 50-blow Marshall Method, complying with AASHTO T245 (ASTM D 1559), of 1200 lb. with a flow between 8 and 16. The Design Mix shall provide the aggregate gradation and bitumen content, as follows:

SIEVE ANALYSIS OF MIX
PERCENT BY WEIGHT PASSING

Sieve	Top Course	Dense Top Course	Binder Course	Dense Binder Course	Base Course	Dense Mix
2 inch					100	
1 inch			100	100	55-80	
3/4 inch			80-100	80-100		
5/8 inch	100					
1/2 inch	95-100	100	55-75	65-80	40-65	100
3/8 inch	80-100	90-100				80-100
No. 4	50-76	50-76	28-50	48-65	20-45	55-80
No. 8	37-54	37-54	20-38	37-51	15-33	48-63
No. 16	26-40	26-40				36-49
No. 30	17-29	17-29	8-22	17-30	8-17	24-38
No. 50	10-21	10-21	5-15	10-22	4-12	14-27
No. 100	5-16	5-16				6-18
No. 200	2-7	2-7	0-5	0-6	0-4	4-8
Bitumen	5.5-7.0	5.5-7.0	4.5-5.5	5-6	4-5	7-8

Air Voids 3-5%
Allowable variance of percent bitumen by weight of total mix = 0.4+%.

2.2 BITUMINOUS CONCRETE FOR DRIVEWAYS

Bituminous concrete for driveways shall conform to the requirements for Dense Mix as specified in paragraph 2.01.G. The maximum allowable percentage of wear, as determined by the L.A. Abrasion Test (AASHTO-T96), shall be 35 percent.

2.3 TEMPORARY TRENCH PAVEMENT

Bituminous concrete for trenches shall conform to the requirements for Binder Mix as specified in paragraph 2.01.F.

2.4 PAVEMENT MARKINGS

A. Pavement markings shall be laid only when work under this contract destroys the existing pavement markings.

B. Pavement markings shall conform to the requirements of MHD 860

C. The mixture of the marking material shall be within the composition limits for reflectorized pavement markings as described in the MHD Specifications as follows:

1. Fast draying traffic paint – M7.01.10/11.

D. Application of the glass beads to be used as reflector material on the striping shall conform to Sections 860.62 and M7.03.07 of the MHD Specifications.

PART 3 EXECUTION

3.1 GENERAL

A. The Contractor shall install all pavements in the location and to the grades shown on the Drawings, or approved by the Engineer. The type and thickness of pavement courses shall be as shown on the Drawings.

B. Equipment: Maintain equipment in satisfactory operating condition and correct breakdowns in a manner that will not delay or be detrimental to progress of paving operations.

3.2 SUBGRADE PREPARATION

A. All subsurface utility construction shall be completed before fine grading begins.

B. The pavement and curb subgrade shall be graded to match the existing conditions.

C. Subgrades in in-situ soils in excavation areas and in embankment areas shall be compacted during fine grading to 95% of maximum dry density in conformance with Section 31 2323.

3.3 SUBBASE MATERIAL PLACEMENT

A. Subbase material shall not be placed until the Engineer has approved the fine grading, compaction and condition of the subgrade.

B. Subbase material shall be placed and spread on the approved subgrade in layers not exceeding eight inches in thickness by approved self spreading equipment. Any displacement of the compacted subgrade material by the equipment shall be restored to the required grade and re-compacted before placement of the subbase material.

C. Subbase material shall be compacted to 95% of maximum dry density in conformance with Section 31 2323.

D. The surface of the subbase material shall be fine graded to the location, elevations and cross slope shown on the Drawings during final layer compaction operations.

3.4 BASE MATERIAL PLACEMENT

A. Base material shall not be placed until the Engineer has approved the fine grading, compaction and condition of the subbase material.

B. Base material shall be spread on the approved subbase in layers not exceeding four inches in thickness by approved self spreading equipment. Any displacement of the subbase material by equipment shall be restored to the required grade and recompacted before of the base material.

C. Base material shall be compacted to 95% of dry density in conformance with Section 31 2323.

D. The surface of the base material shall be fine graded to the proposed location, elevations and cross slope shown on the Drawings during final layer compaction operations.

3.5 PAVEMENT PREPARATION

A. Proof roll prepared base material surface to identify areas requiring removal and re-compaction, and to provide a uniform degree of compaction over the entire pavement area.

B. Do not begin paving work until deficient base material areas have been corrected and are ready to receive paving. Paving shall not be applied until the Engineer inspects and approves the finished base.

C. Check all frames, covers, grates, water valve boxes and other miscellaneous castings that are located in the proposed pavement areas to ensure that all have been correctly positioned and set to the proper slope and elevation. All covers and grates shall be set flush with the required finished surface. No depressions or mounds will be permitted in the pavement to accommodate inaccuracies in the setting of castings.

D. All vertical surfaces of structures and existing concrete surfaces in contact with new bituminous pavement shall be painted with a uniform coating of an approved tack coat material. Extreme care shall be exercised in the application of this material to prevent splattering or staining of surfaces that will be exposed after the paving is completed. Surfaces that are stained as a result of the Contractor's operation shall be repaired or replaced at no additional cost to the Owner.

E. All existing paved surfaces to be overlayed shall be thoroughly cleaned by a self-propelled sweeper. Areas inaccessible by power sweeper shall be broom swept until the pavement surface is clean.

3.6 PAVEMENT APPLICATION

A. Tack Coat:

1. Apply to contact surfaces of all cement concrete and other surfaces abutting or projecting into pavement.

2. Apply tack coat to existing pavement surfaces to receive bituminous concrete overlay at a rate of 0.05 gallons per square yard of surface.

3. Allow to dry until at proper condition to receive paving.

3.7 ASPHALTIC CONCRETE PAVEMENT

A. Spread bituminous concrete on completed compacted base surface.

B. Whenever possible, all pavements shall be spread by a self-propelled finishing machine. At inaccessible or irregular areas, pavement may be placed by hand methods. If hand methods are used, the hot mixture shall be spread uniformly to the required depth with hot shovels and rakes. After spreading, the hot mixture shall be carefully smoothed to remove all segregated coarse aggregate and rake marks. Rakes and lutes used for hand spreading shall be of the type designed for this use. Material loads shall not be dumped faster that they can be properly spread. Workers shall not stand on the loose mixture while spreading.

C. Paving Machine Placement: In the larger parking fields, the binder course shall be placed in a transverse direction to the top course. The top course shall be placed in the direction of surface-water flow. Place in typical strips not less than 10 feet wide.

D. Joints: Make joints between old and new pavements, and between successive days' work, to ensure continuous bond between adjoining work. Construction joints shall have same texture, density, and smoothness as other sections of paving. Clean contact surfaces and apply tack coat.

3.8 ROLLING AND COMPACTION

A. The mixture, after being spread, shall be thoroughly compacted by rollers having a minimum weight of 240 pounds per inch of wheel width as soon as it will bear the weight of the rollers without undue displacement. The number, weight, and types of rollers and sequences of rolling operations shall be such that the required density and surface are consistently attained while the mixture is in a workable condition.

B. Compact mixture with hot hand tampers or hand rollers in areas inaccessible by self-propelled rollers.

C. Accomplish breakdown or initial rolling immediately following rolling of joints and outside edge. Check surface after breakdown rolling, and repair displaced areas by loosening and filling, if required, with hot material.

D. Follow breakdown rolling as soon as possible, while mixture is hot. Continue second rolling until mixture has been thoroughly compacted.

E. Perform finish rolling while mixture is still warm enough for removal of roller marks. Continue rolling until roller marks are eliminated and course has attained maximum density.

F. Remove and replace paving areas mixed with foreign materials and defective areas and fill with fresh, hot top or binder course material. Compact by rolling to maximum surface density and smoothness.

G. After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened. Erect barricades to protect paving from traffic.

3.9 TEMPORARY TRENCH PAVEMENT

A. Where specified and as directed by the Engineer and after placement of the gravel subbase, temporary bituminous concrete pavement shall be placed above the trench, between the edges of the existing pavement. Temporary trench pavement shall be installed to the dimensions shown on the drawings.

B. The temporary trench pavement shall be repaired as necessary to maintain the surface of the pavement until completion of the contract.

C. Final pavement shall not be placed over trenches until the Base Course pavement has been in place over an entire winter season (November 15 to April 15) unless otherwise directed in writing by the Engineer.

3.10 FIELD QUALITY CONTROL

A. Independent Testing Laboratory, selected and paid by Owner, shall be retained to perform construction testing of in-place bituminous concrete courses for compliance with requirements for thickness and surface smoothness. Top and base courses will be randomly cored by the testing laboratory technicians at a minimum rate of one core for every 20,000 square feet of paving, however, no less than three cores in light duty areas and three cores in heavy duty areas will be obtained. Core holes shall be immediately filled with bituminous or cement concrete by the Contractor. Pavement samples will be tested for conformance with the mix design.

B. Grade Control: Establish and maintain required lines and elevations.

C. Thickness: In-place compacted thickness shall not be less than thickness specified on the drawings. Areas of deficient paving thickness shall receive a tack coat and a minimum 1 inch compacted thickness overlay; or shall be removed and replaced to the proper thickness, at the discretion of the Engineer, until specified thickness of the course is met or exceeded at no additional cost to the Owner.

D. Surface Smoothness: Testing shall be performed on the finished surface of each course for smoothness, using 10-foot straightedge applied parallel with, and at right angles to centerline of paved area. The results of these tests shall be made available to the Owner upon request. Surfaces will not be acceptable if they exceed the following tolerances for smoothness:

Base and binder course surface:	1/4 inch
Top course surface:	3/16 inch

E. Check surface areas at intervals necessary to eliminate ponding areas. Remove and replace unacceptable paving as directed by Owner.

F. Compaction: Field density test for in-place materials shall be performed by examination of field cores and shall have a minimum compacted density of 95% of laboratory Marshall Density in accordance with one of the following standards:

1. Bulk Specific Gravity and Density of Compacted Bituminous Mixture Using Paraffin-Coated Specimens: ASTM D-1188.

2. Bulk Specific Gravity of Compacted Bituminous Mixtures Using Saturated Surface Dry Specimens: ASTM D-2726.

Areas of insufficient compaction shall be delineated, removed, and replaced in compliance with the specifications at no additional cost to the Owner.

3.11 MEETING EXISTING PAVEMENTS

A. Where new pavements will abut existing pavements, the Contractor shall sawcut the existing pavements to produce a uniform, smooth joint surface. Sawcutting of existing pavements shall be neat, straight and even lines, and done in a manner that prevents damage to the pavement to remain.

B. Full-Depth Pavement: Sawcut by approved method to the full depth of the pavement prior to placement of any new pavement. The sawcut surface shall be a neat true line with straight vertical edges free from irregularities. The sawcut surface shall be tack coated immediately prior to the installation of the new abutting bituminous concrete material to provide a bond between the old and new pavement. The new compacted pavement surface shall be finished flush with the abutting pavement.

C. Bituminous Concrete Overlays: The existing bituminous pavement shall be sawcut to a neat true line with straight vertical edges free of irregularities for a minimum depth of one and one half inches. One and one-half inches of pavement shall be removed to form a transition section across the entire pavement width and with a length of two feet at driveways and six feet in roadways and parking areas. Immediately prior to the placement of the bituminous concrete overlay, the sawcut edges of the existing pavement shall be tack coated to bond the new pavement to the old pavement. The new pavement surface shall be finished flush with the abutting pavement. The surface seam of the pavement joint shall be sealed with tack coat and back sanded.

3.12 PAVEMENT MARKINGS

A. All existing traffic striping disturbed within the areas of the Contractors operations shall be replaced with fast drying traffic paint over the Base and Binder Course pavement and with thermo-plastic reflectorized traffic striping over the final pavement. New striping shall conform to Mass Highway Standard Specifications and materials used shall exactly match the existing striping. The work shall include but not be limited to multiple centerlines, sidelines, intersecting layouts including cross walks and traffic warning signs.

B. New striping shall be installed by a Contractor possessing the capability necessary to perform the Work in an acceptable manner. New striping shall be placed on both the temporary pavement that will be in place over a winter season and on the final pavement.

3.13 ADDITIONAL PAVING

A. If the Engineer determines that the existing bituminous concrete pavement on local streets is thicker than the permanent pavement specified herein, the Contractor may be required to install additional bituminous concrete to obtain the depth of the existing pavement

B. If for the installation of full width paving, the Engineer determines that the existing road surface requires additional leveling pavement, then the Contractor shall install additional bituminous concrete to bring the section to proper line and cross section. Additional paving required to restore the proper line and cross section of binder course installed by the Contractor which has become rough and uneven shall be furnished and installed at the expense of the Contractor.

END OF SECTION

SECTION 32 16 00
CURBING

PART 1 GENERAL

1.1 RELATED DOCUMENTS

This section is only a portion of the Contract Documents. All of the Contract Documents, including Division 1 General Requirements, apply to this section.

1.2 SECTION INCLUDES

A. This Section specifies requirements for all types of granite and concrete curbs.

B. The work includes:

1. Furnishing and installing precast concrete curb and cast-in-place concrete curb.
2. All associated items and operations required to complete the installations, including surface preparation, concrete support, jointing and finishing.

1.3 REFERENCE STANDARDS

A. References herein are made in accordance with the following abbreviations and, all work under this Section shall conform to the latest editions as applicable.

B. ACI 304—Recommended Practice for measuring, mixing, transporting and placing concrete.

C. ANSI/ASTM D1751—Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction (Non extruding and Resilient Bituminous Types).

D. ANSI/ASTM D1752—Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction.

E. ASTM C33—Concrete Aggregates.

F. ASTM C94—Ready-Mixed Concrete.

G. ASTM C150—Portland Cement.

H. ASTM C260—Air-Entraining Admixtures for Concrete.

I. ASTM C309—Liquid Membrane-Forming Compounds for Curbing Concrete.

J. ASTM C494—Chemical Admixtures for Concrete.

K. ASTM C615-Standard Specification for Granite Dimension Stone

L. Massachusetts Highway Department Standard Specifications for State Highways and Bridges (MHDSSHB).

1.4 SUBMITTALS

A. Submit Shop Drawings and Manufacturer's literature for stone edging, corners and inlets, indicating size, shape and dimensions, finish and setting method for Engineer's approval.

B. Copies of tests on representative samples of the concrete used in the manufacture of precast units showing a compressive strength of 5,000 pounds must be received by the Engineer prior to shipping any units.

1.5 DELIVERY, STORAGE AND HANDLING

A. Precast curb units shall be adequately protected from damage during transit to the site.

B. Curbing shall be protected against staining, chipping, and other damage. Cracked, badly chipped, or stained units will be rejected and shall not be employed in the work.

1.6 SAMPLES

A. The Contractor shall supply to the site three samples of all curb types for approval prior to ordering materials. Approved sample material may be used in the work upon approval by the Engineer.

PART 2 PRODUCTS

2.1 GRANITE EDGING

A. Granite edging shall conform to the current edition of the Massachusetts Highway Department Standard Specifications for state Highways and Bridges (MHDSSHB). Granite edging shall be as specified in Section M9.04.2, Type SB.

B. All granite edging with radius of 160 foot or less shall be as shown on the Drawings, except that where the edging is to be set on a radius of 10 feet, the maximum length shall be 1 foot.

2.2 CAST-IN-PLACE CONCRETE CURB

A. Concrete and reinforcement for cast-in-place concrete curbs shall be as specified in Section 03 3000, Cast-in-Place Concrete.

2.3 CEMENT MORTAR

A. Cement mortar shall be composed of one part Portland Cement and two parts of sand by volume with sufficient water to form a workable mix. Cement shall be Portland Cement Type II.

PART 3 EXECUTION

3.1 GENERAL

A. Trenching, excavation, backfilling, and compaction shall be completed in accordance with these specifications, except as modified within this Section.

B. Cement mortar bedding, shall be placed as shown on the drawings and in accordance with Section 03 3000, Cast-in-Place Concrete.

3.2 GRANITE EDGING INSTALLATION

A. Stone edging units delivered to the site shall be inspected for damage, unloaded and placed along the prepared curb trench, or other designated location, with the minimum amount of handling.

1. Materials shall be handled in a manner that prevents damage to the curb units.
2. All individual pieces of curved curbing shall be marked to correspond to the radius and location where curbing is to be set.

B. Excavation

1. The trench for curb shall be excavated to a width of 18 inches. The gravel base shall be placed in the excavated area, compacted, and graded to above the proposed curb subgrade.
2. The subgrade of the trench shall be a depth below the proposed finished grade of the curb equal to 6 inches plus the depth of the curbstone.

C. Stone edging units shall be doweled together continuously to the line and grade shown on the Drawings. Any units damaged during setting operations shall be removed and replaced.

D. After the edging is set, the trench shall be backfilled immediately with approved material. The first layer shall be 4 inches in depth and compacted. the other layers shall be not more than 6 inches in depth and compacted until the trench is filled. Care shall be taken to prevent disturbing the line or grade of the curb during this procedure.

3.3 CAST-IN-PLACE CONCRETE CURB

A. General: Concrete curb shall be cast in place to the size, shape, line and grade shown on the Drawings. The curbing shall be constructed using clean, undamaged forms and in segments separated by construction joints and expansion joints.

B. Preparation: The curb trench shall be excavated, and the gravel base placed to the dimensions shown on the Drawings. The gravel base shall be compacted and graded to the proposed curb subgrade.

C. Forms: Forms shall be metal or acceptable planed and matched lumber, straight and free from warp or other irregularities that will adversely affect the installation. Forms shall conform to the curb cross-sections shown on the drawings and shall be carefully set to line and grade, thoroughly braced and secured in place so that there will be no displacement during placing of the concrete. All forms shall be thoroughly cleaned prior to reuse.

D. Placing of Concrete: Prior to placing the concrete, the subgrade shall be moistened and the contact surfaces of the forms given a light coating of oil that will not discolor the concrete. Concrete shall be placed in the form, struck off with a template and spaded or otherwise compacted to eliminate voids and finished to a smooth even surface. The concrete may be compacted by mechanical vibrators if approved by the Engineer. Placing by slip form methods shall be approved by the Engineer.

E. Expansion Joints: Vertical expansion joints shall be located approximately every seventy-five feet and shall match the location of points of curb curvature and tangency and expansion joints in any adjacent concrete pavements and sidewalks. Expansion joints shall be constructed vertical, plumb, and at right angles to the face of the curb. They shall be 1/2 inch in width and formed with premolded bituminous joint filler cut to conform to the curb cross-section.

F. Construction Joints: Vertical construction joints shall be located approximately every fifteen feet equally spaced between expansion joints. The length of the curb segments may be varied slightly for closures, but in no case shall they be less than eight feet. Construction joints shall be vertical, plumb and at right angles to the face of the curb and shall be formed by approved method that will provide complete separation of the curb segments during the placing of the concrete. If curb is formed by slip form methods, the joints shall be sawed as soon as practicable after the concrete has set to prevent ravelling during the sawing and before any shrinkage cracking occurs in the concrete.

G. Finishing: Forms shall be left in place for 24 hours or until the concrete has sufficiently cured to permit removal without injury to the curb. Upon removal of the forms, the exposed faces of the curb shall be immediately rubbed to a uniform surface. Rubbing shall be performed by an experienced concrete finisher. No plastering with cement mortar to fill defects will be allowed.

END OF SECTION

SECTION 32 18 16
SYNTHETIC PLAYGROUND SURFACING

PART 1 GENERAL

1.1 SUMMARY

Section includes poured in place synthetic playground surfacing system.

A. Contractor shall coordinate work between all Contractors, sections, and trades required for the proper completion of the work.

Contractor is responsible for all health and safety.

1.2 REFERENCES

A. Reference herein to any technical society, organization, group or regulation are made in accordance with the following abbreviations and, unless otherwise noted or specified, all work under this Section shall conform to the latest edition as applicable.

B. Code of Federal Regulations (CFR).

1. 29 CFR 1926, Safety and Health Regulations for Construction.

C. American Society for Testing and Materials (ASTM).

1. ASTM C67- Standard Test Method for Sampling and Testing Brick and Structural Clay Tile
2. ASTM C136- Standard Test Method for Sieve Analysis of Fine and Coarse Aggregate.
3. ASTM D297- Standard Test Methods for Rubber Products-Chemical Analysis-Density.
4. ASTM D412- Standard Test Method for Vulcanized Rubber and Thermoplastic Elastomers Tension.
5. ASTM D412- Compressive and Flexural Creep and Creep Rupture of Plastic Lumber and Shapes.
6. ASTM D573- Standard Test Method for Rubber Deterioration in an Air Oven.
7. ASTM D624- Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
8. ASTM D648- Deflection Temperature of Plastics Under Flexural Load in the Edgewise Position.
9. ASTM D1557- Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort.
10. ASTM D2047 – Standard Test Method for Static Coefficient of Friction of Polished Floor Surfaces as measured by the James Machine
11. ASTM D2261- Tearing Strength of Fabrics by the Tongue Procedure.
12. ASTM D2859- Flammability of Finished Floor Cover.

13. ASTM D3389- Abrasion Testing.

14. ASTM E303- Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester.

15. ASTM E1912- Accelerated Site Characterization for Confirmed or Suspected Petroleum Releases.

16. ASTM F1015- Relative Abrasiveness of Synthetic Turf Playing Surfaces.

17. ASTM F1292- Impact Attenuation of Surface Systems Under and Around Playground Equipment.

18. ASTM F1487- Playground Equipment for Public Use.

19. ASTM F1951- Accessibility of Surface Systems.

20. ASTM F2223- Standard Guide for ASTM Standards on Playground Surfacing.

21. ASTM F2479- Standard Guide for Specification, Purchase, Installation and Maintenance of Poured-in-Place Playground Surfacing.

22. ASTM G21-96- Fungal Resistance

D. Consumer Product Safety Commission (CPSC)

1. CPSC Pub. No. 325- Handbook for Public Playground Safety.

E. U.S. Environmental Protection Agency

1. Method 3052; 1996

1.3 SUBMITTALS

A. Material certificates or other data indicating compliance with these Specifications for composition, color, and accessories.

1. Manufacturer’s warranty.

2. Product Data

3. Manufacturer’s descriptive data, and catalogue cuts.

4. Manufacturer’s specifications, handling and storage requirements, installation procedures, and safety data sheets to include warnings and critical height performance standards for synthetic surfacing.

5. A list to include protective surfacing materials and the components for synthetic surfacing.

6. Impact attenuation and critical height performance for each thickness of synthetic surfacing provided.

7. Samples

8. Synthetic Surfacing: A minimum 6 inch by 6-inch sample.

9. Material Test Reports

B. Synthetic Surfacing: Chemical composition, color granule percentage, and test results to which material has been subjected, identifying each material and component containing recycled materials and showing the estimated percentage of recovered material content. Freezing temperature life cycle durability.

C. Qualification Data: For Installer. Include list of similar project experience of size for a minimum of 5 projects over the past 5 years.

D. Certificate: Prior to delivery of materials, certificates of compliance attesting that materials meet the specified requirements. Certified copies of the material certificates shall include composition and tests to which the material has been subjected.

E. Maintenance Data: Two bound copies of manufacturer's maintenance manual.

1.4 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

1.5 DELIVERY, STORAGE AND HANDLING

A. Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.

B. Store materials in a dry area at a minimum temperature of 40 degrees F.

C. Protect materials during handling and installation to prevent damage or contamination.

1.6 WARRANTY

A. Provide manufacturer's standard warranty, as applicable, for all products furnished under this Section. Warranty shall be registered in Owner's name.

B. Bind warranties in heavy-duty, commercial-quality, durable 3-ring, vinyl-covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.

1.7 LIMITATIONS

A. The following chemicals may cause damage to the poured in place safety surfacing and should be avoided: disinfectants, concentrated chlorine bleach, gasoline, diesel fuel, hydraulic and lubricating oils, acids and organic solvents.

B. Areas in excess of 1,000 square feet or composed of adjacent colors may contain a cold joint or seam due to the nature of the installation process.

1.8 SYSTEM DESCRIPTION

A. Performance Requirements: Provide a 2-layer rubber-urethane playground surfacing system which has been designed, manufactured, and installed to meet the following criteria:

1. Shock Attenuation (ASTM F1292):

2. Gmax: Less than 200.

3. Head Injury Criteria: Less than 1000.

4. Flammability (ASTM D2859): Pass.

5. Tensile Strength (ASTM D412): 60 psi (413 kPa).

6. Tear Resistance (ASTM D624): 140%.

7. Water Permeability: 0.4 gal/yd2/second.

8. Accessibility: Comply with requirements of ASTM F1951.

PART 2 PRODUCTS

2.1 GENERAL

A. Provide surfacing material to the extent indicated on the Drawings.

2.2 POURED IN PLACE SYNTHETIC SURFACING

A. Basis of Design: Surface America, Inc. Playbound Poured-in-Place playground surfacing system.

B. Contact: PO Box 157, Williamsville, NY 14231; Telephone: (800) 999-0555, (716) 632-8413; Fax: (716) 632-8324; E-mail: info@surfaceamerica.com; website: http://www.surfaceamerica.com. Or approved equal.

C. Wearing Course: Blend of virgin colored EPDM (ethylene propylene diene monomer) rubber or TPV granules and aliphatic urethane binder.

D. Cushion Course: Manufacturer's standard formulation of 100% recycled SBR rubber with correct amount of urethane for impact attenuation and longevity.

E. Binder: Weather-resistant, flexible, non-hardening, aliphatic, 100 percent solids polyurethane complying with requirements of authorities having jurisdiction for nontoxic and low VOC content. No TDI urethanes will be permitted.

F. Primer/Adhesive: Manufacturer's standard primer and weather-resistant, moisture-cured polyurethane adhesive suitable for unit, substrate, and location indicated.

G. Warranty: Surfacing shall maintain required impact attenuation characteristics and be guaranteed against color fading, cracking, loss of resilience, delamination, defects in workmanship and material for a period of no less than five (5) years or as specified and agreed upon per contract.

2.3 COLOR

A. Color 1: 50/50 Blend of Black and Hunter Green

B. Color 2: 50/50 Blend of Black and Royal Blue

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine areas to receive poured-in-place playground safety surfacing. Ensure all applicable site work, including subsurface preparation, fencing, playground equipment installation and all other relevant work, has been completed. Notify owner if areas are not acceptable. Do not begin installation until unacceptable conditions have been corrected.

3.2 PREPARATION

A. Prepare subsurface in accordance with manufacturer's instructions to ensure proper support and drainage for poured-in-place playground safety surfacing. Finished elevations of subsurface shall be as indicated on the Drawings. Finished elevations of adjacent areas/borders/edging shall be as indicated on the Drawings. Subsurface shall be installed in a true, even plane and sloped to drain unless otherwise indicated on the Drawings.

3.3 AGGREGATE SUBSURFACE

Conform with the requirements of Section 31 2310 - Earthwork

3.4 INSTALLATION

A. Seamless Surface: Mix and apply components of playground surface system according to manufacturer's written instructions to produce a uniform, monolithic wearing surface and impact-attenuating system of total thickness indicated.

B. Poured Cushion Course: Spread evenly over primed substrate to form a uniform layer applied at manufacturer's standard spreading rate in one continuous operation, with a minimum of cold joints. Thickness of cushion course should meet ASTM 1292-04 guidelines and shall be a minimum of 1” thick. Thickness of material must match fall height of equipment. Documentation from supplier is required.

C. Intercoat Primer: Over cured cushion course, apply primer at manufacturer’s standard spreading rate.

D. Wearing Course: Spread over primed base course to form a uniform layer applied at manufacturer's standard spreading rate in one continuous operation and, except where color changes, with cold joints. Finish surface to produce manufacturer's standard wearing-surface texture. Minimum thickness of wear course shall be ½” after being trowled. A minimum of 5/8 screed rod shall be used when leveling wear course.

Where colored pattern is indicated, place adjacent colored material as soon as placed colored material is sufficiently cured, using primer or adhesive if required by manufacturer's written instructions.

E. Edge Treatment: Fully adhere edges to substrate with full coverage of substrate. Maintain fully cushioned thickness required to comply with safety performance requirements.

3.5 PROTECTION

A. Do not allow foot traffic on poured-in-place playground safety surfacing until a minimum of 80 percent cure is obtained. Estimated time to obtain 80 percent cure will range from 6 to 72 hours depending on temperature and humidity.

B. Protect completed poured-in-place playground safety surfacing from damage during installation and cure time.

C. Protect completed poured-in-place playground safety surfacing from damage from subsequent construction activity.

END OF SECTION

SECTION 32 28 20
CHAIN LINK FENCE

PART 1 GENERAL

1.1 SCOPE OF WORK

A. The work under this section consists of furnishing and installing chain link fence fabric and hardware and framework of various heights as shown on the Contract Drawings and as specified herein including all labor, materials and equiptment necessary to finish the work complete in place.

1.2 REFERENCE STANDARDS

A. References herein to any technical society, organization, group or body is made in accordance with the following abbreviations: The principal work of this Section includes, but may not be limited to, the following:

1. ASTM American Society for Testing Materials

2. AWS American Welding Society

1.3 QUALITY ASSURANCE

A. All fencing shall conform to the specifications of the Chain Link Fence Manufactuerer’s Insitute and as specified herein.

1.4 SUBMITTALS

Per Section SPECIAL CONDITIONS of these Specifications, submit:

A. Three (3) samples, approximately 3" long or 6" square of fabric material, post sections and typical accessories.

B. Shop drawings or catalog cuts including details illustrating fence height, fence post spacing, and sizes of posts, rails, braces, footings, gates and all accessories.

1.5 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Deliver material in manufacturer's original packaging with all tags and labels intact and legible. Handle and store material in such a manner as to avoid damage.

PART 2 MATERIALS

2.1 STEEL POSTS, RAILS AND BRACES

A. GENERAL:
   a. All fence pipe for posts, rails and all braces and appurtenances shall be schedule 40 round, seamless hot dip galvanized pipe conforming to ATM-A-120-1 or approved equal
   b. All structural shapes shall be , and galvanized in conformance with ASTM Designation A123.
   c. All materials shall be fusion bonded in accordance with ASTM-F668 Class 2B.

B. End, Comer, and Pull Posts
   a. Fence up to and including 5’-0” in height: 2.375” O.D. pipe, 3.65 lbs. per linear foot.
   b. Fence over 5’-0” in height: 2.875” O.D. pipe, 5.79 lbs. per linear foot.
   c. Fence over 10’-0” in height: 4.00” O.D. pipe, 9.11 lbs. per linear foot.
   d. Maximum spacing 10’-0” on center.

C. Line Posts (10’-0” Maximum Spacing)
   a. Fence up to 5’-0” in height: 1.90” O.D. pipe, 2.28 lbs. per linear foot.
   b. Fence over 5’-0” in height: 2.375” O.D. pipe, 3.12 lbs per linear foot.
   c. Fence over 10’-0” in height: 2.875” O.D. pipe, 5.79 lbs per linear foot.

D. Gate Posts
   a. Gate posts for single leaf gates six (6) feet or less in width: 2.875” O.D. pipe, 4.64 lbs. per foot min.
   b. Gate posts for single leaf gates six (6) to twelve (12) feet in width: 4.00” O.D. pipe, 6.56 lbs. per foot.

E. Rails
   a. All rails shall be 1.66” O.D. pipe weighing 2.27 lbs. per linear foot furnished in manufactuerer’s standard lengths of approximately 21’-0” with outside sleeve type couplings, at least six (6) inches long for each joints- one (1) coupling in each five (5) to have expansion spring. Provide means for attaching rails securely to each coner, pull and end post. Rails shall form continuous brace from end to end of each run of fence.

F. Post Bracing Assembly
   a. 1.66” O.D. pipe weighing 2.27 lbs. per linear foot (for horizontal braces). Provide at each side of corner and pull posts at end posts for fence six (6) feet or higher.

2.2 CHAIN LINK FABRIC

A. GENERAL:
   a. Chain Link fence fabric shall be 9 gauge or as indicated on the details. Fabric shall be 2" mesh galvanized steel finish.
   b. Galvanized finish minimum zinc weight 275 g/m2.
   c. Top and bottom of fabric shall have knuckled selvage, both sides.

2.3 FITTINGS AND ACCESSORIES

a. All accessories shall be in accordance with paragraph 2.01 above, and galvanized in conformance with ASTM Designation A153.
b. Post Caps
Furnish and install tight fitting pressed steel or malleable iron caps, designed as a weather tight closure cap. Provide one (1) pass-through looped cap for each line post, and one (1) acorn style cape for each end or comer post. Where top rail is used, provide looped cap tops to permit passage of top rail.
c. Tension Bars
    a. One (1) piece lengths equal to full height of fabric with minimum cross section of3/16" x 3/4", conforming to ASTM Designation A123. Provide one (1) stretcher bar for each end post and two (2) for each comer and pull post.
    b. Tension bands and brace bands, ifutilized, shall be 7/8" x 12 gauge beveled, galvanized, sized to fit pipe sizes and furnished with galvanized fasteners. Galvanizing shall conform with ASTM Designations A123 or A153 as they pertain.

d. Rail Clamps
    a. Rail clamps shall be standard clamps (boulevard clamps) furnished complete with fasteners with ASTM Designation A153.

e. Fabric Wire for tying Fabric
    a. Fabric shall be attached using 9 guage galvanized wire.

f. Fittings, lugs, clamps and other accessories shall be steel conforming to ASTM Designation F626 and galvanized in conformance with ASTM Designation A153.

2.4 ANCHORING CEMENT

A. GENERAL:
    a. Cement for anchoring posts in sleeves embedded in concrete walls shall be "POR-ROK", as manufactured by Hallemite (Lehn and Fink Industrial Products, Division of Sterling Drugs, Inc.), Montage, New Jersey, or approved equal.
    b. “SIKA Cola-Due” by the Sika Co.
    c. “Five Star Grout” the Five Star Co.

2.5 CEMENT CONCRETE

a. Cement concrete for post footings shall conform to Section 03 30 00 of these specifications.

PART 3 EXECUTION

3.1 POST INSTALLATION

A. Install new chain link fence in the locations shown on the Contract Drawings, and as approved by the Landscape Architect.

B. Excavation for post footings as herein before specified in Section 02300 ofthese Specifications, shall be in firm undisturbed or compacted soil. Post footing diameters vary according to post sizes required and are in accordance with attached details. Excavate hole depths six (6) inches lower than post bottom with bottom of posts set not less than thirty-six (36) inches below surface when in firm, undisturbed soil. Where ledge is encountered, the Contractor shall notify the Landscape Architect to determine method of installation. Payment for any additional work required when installations are in ledge shall be in accordance with methods described in SPECIAL CONDITIONS of these Specifications.

C. Place concrete around posts in a continuous pour, tamp for consolidation. Check each post for vertical and top alignment and hold in position during placement and finishing operation. Crown the top of the concrete footings to pitch water away from posts.

D. Under bituminous pavements, tops of footings are to be finished smooth and are to pitch one (1) inch from the posts to the outside edge of the foundation.

E. In mower strip locations, form top twelve (12) inches square and finish to match mower strip with 114" pitch away from posts.
   a. If applicable, top of fence footings at players' benches and cement concrete mower strips shall terminate six (6) inches below pavement finish grade.

3.2 FENCE ERECTION

A. Top and Bottom Rails
   a. Top and bottom rails shall form a continuous brace from end to end of each fence run. In addition, all end and comer posts shall be braced to the nearest line post with center brace rails. Outside sleeve type top rail coupling shall be placed a maximum of twelve (12) inches from line posts.

B. Middle Rails
   a. All chain link fencing ten (10) feet or more in height shall have a continuous middle rail.

C. Brace Assemblies
   a. Furnish and install braces and appurtenances so posts are plumb when diagonal rod is under proper tension. All "tension" assemblies shall conform to ASTM 567 and the MASS DPW Standard Specifications Section M.8.09

D. Fabric
   a. The fabric shall be installed on the "public" or "sports field" side of the fence.
   b. All fabric shall be aligned so that the top row of the fabric mesh is tied to the top rail, and so that the bottom selvage of fabric mesh stands one (1) inches above the finish grade of the lawns, pavements or concrete wall grade and that the bottom row of the fabric mesh is tied to the bottom rail.
   c. Fabric shall be properly stretched and securely fastened to the posts and rails, and between posts the top and bottom of the fabric shall be fastened to the horizontal braces as herein specified, and approved by the Landscape Architect. Fabric shall be stretched uniformly taut and as tight as possible, true to line and grade and complete in all details. Install tension bars at comers.
   d. The fabric shall be fastened to end and comer posts with tension bars and stretcher bar bands spaced at one (1) foot intervals.

E. STRETCHER BARS
   a. Thread through fabric and secure to posts with approved metal bands spaced not over twelve (12) inches O.C.

F. FABRIC BANDS
   a. Fabric Bands shall be placed at the intervals indicated on the details and securely fastened to all fence posts.

b. All bands shall be pulled tight an raw ends of steel bands shall be secured in buckle by folding ear tabs around steel bands as per manufacturer's recommended installation procedure. No sharp edges shall protrude from band-it buckles. When applicable, band will be PVC , color to match fabric and framework.

G. FASTENERS

a. Install nuts for tension band and hardware bolts on side of fence opposite fabric side unless directed otherwise by the Landscape Architect.

3.3 GATE FRAMES (WHERE APPLICABLE)

a. Gate frames shall be galvanized steel1.90" O.D. standard weight pipe, 2.72 pounds per linear foot. Gates shall be fabricated using welded construction with all welds ground smooth and with 3.0 mil. thickness of cold galvanizing compound. Gates must be properly braced to eliminate any possible sagging condition. For gates over eight (8) feet in height, provide additional horizontal and vertical interior members to ensure proper strength.
b. Fabric shall be installed with hookbolts and tension bars on all four (4) sides and attached to gate frame at twelve (12) inches on center.
c. Hardware materials shall be hot dipped galvanized steel. All moveable parts (e.g., hinges, latch, keeper, and drop bar)
d. Hinges shall be of sufficient structural strength and design to support gate leaf and to permit easy and trouble free operation. Non-lift-off type hinge design shall permit the gate to swing 180 degrees inward or outward in accordance with the Contract Drawings
e. All gates shall be equipped with a positive type latching device capable of retaining the gate in a closed position and have provision for padlock. Latches shall permit operation from either side of gate and must be approved by the Landscape Architect prior to the installation. Refer to details for latch device.
f. Gate keepers shall be provided for each gate leaf over five (5) feet wide. Gate keeper shall consist of mechanical device for securing free end of gate when in full open position.
g. Double gates: Provide drop rod to hold inactive leaf. Provide gate stop pipe to engage center drop rod. Provide locking device and padlock eyes as an integral part of the latch, requiring one padlock for locking both gate leaves.
h. Gate Installation
    a. Check gate posts for vertical alignment and maintain in position during placement and finishing operations.
    b. Set keeper, stops, sleeves into concrete.
    c. Install gates plumb, level and secure for full opening without interference.
    d. Attach hardware by means which will prevent unauthorized removal.
    e. Adjust hardware for smooth operation.

3.4 FINISH PROTECTION

a. During the fence installation, care shall be taken to avoid damaging the galvanized surfaces of the fence components. All scratches and abrasions shall be thoroughly corrected in a manner satisfactory to the Landscape Architect before final acceptance.

END OF SECTION

SECTION 32 00 00
PLANTING

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. This section is only a portion of the Contract Documents. All of the Contract Documents, including Division 1 General Requirements, apply to this section.

1.2 SECTION INCLUDES

A. Provide all facilities, labor, materials, tools, equipment, appliances, transportation, supervision, and related work necessary to complete the work specified in this section, and as shown on the Drawings.

B. The work of this section includes the planting work as indicated on the drawings and/or as specified herein. Information on plant species, sizes, locations, and planting details are located in the drawings. The work shall include but not be limited to the provision and installation of trees, shrubs, and groundcover plants, and associated staking, fertilizing, backfill soil mix, one-year maintenance contract, clean-up, and guarantee.

1.3 RELATED SECTIONS

A. Section 31 01 30 – EARTHWORK

B. Section 32 92 00 - TURF AND GRASS

1.4 SUBMITTALS

A. Submit the following under provisions of Section 01 33 00 - Submittal Procedures:
   1. Plant Material Availability Confirmation: At least 60 days prior to anticipated planting, the Contractor shall submit a confirmation of availability for all plants on the list, accompanied by nursery sources. No substitutions shall be made without the written consent of the Landscape Architect.

B. Tagging Schedule:
   1. At least 30 days prior to planting, the Contractor shall submit a schedule for tagging material to the Landscape Architect. Once tagged, the Contractor shall provide written documentation to the Landscape Architect that trees have been paid for or a retainer has been placed on the plant material to ensure that the nursery will hold the plants until planting operations can begin. If, due to schedule delays, the planting will be delayed and the plant material needs to be released, the Contractor shall submit the request to release material in writing, for approval of the Landscape Architect. No plant material shall be released without approval in writing from the Landscape Architect.

C. Manufactuers Product Data:
   1. Specifications Instructions: Submit material specifications, manufacturer's literature and installation instructions where applicable attesting that the following materials meet the requirements specified:
   2. Fertilizer

3. Anti-desiccant
4. Mulch
5. Stakes
6. Soil Amendments

D. Samples:
1. Submit the following samples:
2. Bark Mulch - 1/2 cubic foot sample in sealed container
3. Loam borrow - 1/2 cubic foot sample in sealed container

E. Soil Test Reports:
1. See Section 32 92 00 - TURF AND GRASS for requirements.
2. Written approval of loam borrow shall be obtained prior to delivery of any materials to the site.

F. Certificates:
1. A Certificate of Compliance to the specifications shall be submitted by the nursery grower with each shipment of each type of plant, certifying that plants meet the genus, species and cultivator type specified on the plant list and have been grown in Zone 5 or hardier conditions.
2. Massachusetts Certified Arborist - submit certification number and qualifications.

G. Maintenance Manual:
1. The landscape contractor shall submit a written manual, prepared for the Owner that outlines a schedule for proper maintenance of the plantings. This schedule should include timing and methods for watering, fertilization, mulching, pruning and other maintenance operations to be conducted after the one-year maintenance contract period.

H. Submittal Schedule
1. Before Installation:
   a. Schedule
   b. Samples
   c. Manufacturer's Product Data
   d. Soil Test Reports
   e. Plant Availability Confirmation
   f. Tagging Schedule
   g. Plant Certification
   h. Arborist information
2. After Installation and before acceptance:
   a. Maintenance Manual

1.5 QUALITY ASSURANCE

A. Conduct all planting operations by experienced personnel under competent supervision. Education, experience and/or certification or license by appropriate organization may be reviewed to evaluate competence. The Contractor must show previous evidence of having successfully installed and maintained landscape projects of similar scope to the subject project with regard to quantities of plants involved, sizes of plants involved, anticipated cost, complexity and a minimum of five (5) years experience on projects similar to this one.

B. Work to be done shall be coordinated with all other trades on site. Work includes furnishing all labor, materials, equipment and services required to complete all planting indicated on the drawings, as specified in this section.

1. Loam/Topsoil: Landscape Contractor shall be responsible for screening, amending and spreading of loam and/or existing topsoil (if available).
2. Plant Approval: All plants will be subject to the approval of the Landscape Architect. Plants shall be inspected at the grower's nursery and upon delivery at the site for conformity to specification requirements. Approval of plants at the source does not alter the right of inspection and rejection at the site, or during the progress of the work. Rejected plants shall be removed immediately from the site. A Landscape Contractor's representative shall be present at all inspections. The Landscape Architect shall provide plastic tags for marking the plants that are selected. All plants on the Plant List shall be pre-selected by the Landscape Contractor to ensure that plants of specified size and species are available at the nursery before the plant selection trip is scheduled. Unless otherwise specified, inspection outside the Commonwealth of Massachusetts shall be made at the expense of the Landscape Contractor, including transportation, accommodations and meals. If, at the discretion of the Owner, nursery tagging and review of the plant materials during delivery at the site are waived, the Contractor is still obligated to supply materials that meet or exceed the quality as established by these specifications. If additional tagging will be necessary, Contractor shall compensate Owner for such tagging.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Do not deliver plant or associated planting materials to the site, until all specified submittals have been submitted to, and approved by, the Landscape Architect.

B. Deliver plant materials to site in healthy and undamaged condition. Tree trunks shall be protected during shipping by a heavy walled cardboard sleeve or other suitable material. Plants shall either be shipped in enclosed trucks or all surfaces, leaves and branches shall be wrapped to prevent damage and desiccation.

C. Rootballs shall be moist upon arrival and shall be kept moist until installation. All balled and burlapped plants that cannot be planted at once must be heeled in by setting them in the ground, covering the rootballs with soil, and watering them adequately.

D. All plants on-site shall meet the requirements specified on the planting plan. Any plant material on site which does not meet the criteria specified shall be replaced with approved plants at the Contractor's expense. Prior approval of plants at the source shall not alter the right of inspection or rejection at the site or during the progress of the work.

E. Only move plant material with solid balls wrapped in burlap or synthetic wrapping or in wire baskets.

F. Deliver plant materials immediately prior to placement. Keep plant materials moist. As required by temperature or wind conditions, apply anti-desiccant emulsion to prevent drying out of plant materials. If installation is delayed more than six (6) hours after delivery, store plants in shade and cover rootballs with mulch. Plants shall not be stored on pavement. Plants shall be watered daily.

G. Reject plants when ball of earth surrounding roots has been cracked or broken prior to, or during, process of planting.

H. Reject plants when burlap, staves and ropes required in connection with transplanting have been displaced prior to acceptance.

1.7 REFERENCE STANDARDS

A. References herein to any technical society, organization, group or body are made in accordance with the following abbreviations and, unless otherwise noted or specified, all work under this section shall conform to the latest edition as applicable:

1. NAA - National Arborist Association, 3537 Stratford Road, Wantagh, New York, 11793, USA, as published in Standards for Pruning Shade Trees, 1979, or latest edition (for pruning standards).
2. ASNS - American Standard for Nursery Stock prepared by the American Association of Nurserymen, latest edition.
3. MHDSSHB- Massachusetts Highway Department Standard Specifications for Highways and Bridges as most recently amended
4. AOAC - Association of Official Agricultural Chemists
5. SPN - Standardized Plant Names as Designated by the American Joint Committee on Horticultural Nomenclature
6. ANSI - American National Standard Institute

1.8 LAWS AND REGULATIONS

A. Do not close or obstruct any street, sidewalk, alley or passageway without prior notification and permission. Conduct operations as to interfere as little as possible with the use ordinarily made of roads, driveways, alleys, sidewalks, or other facilities near enough to the Work to be affected thereby.

B. Contractor shall verify all utility locations and elevations prior to excavation. The Contractor shall be responsible for any damages done by himself or his workmen to existing utilities, which shall be repaired or paid for by the Contractor. Before construction starts, all utility companies, public and private, must be contacted including those in control of utilities not shown on the plans. Contractor must contact Dig Safe at 1-888-344-7233, seventy-two (72) hours prior to any excavation. Report any discrepancies in writing to the Landscape Architect and receive written instructions prior to proceeding.

1.9 INSPECTION FOR ACCEPTANCE

A. After the minimum ninety (90) day maintenance period, the Contractor shall request the Landscape Architect, in writing, for an inspection to determine whether the plant material is acceptable. If the plant material and workmanship are acceptable, written notice will be given by the Landscape Architect to the Contractor stating that the guarantee period begins from the date of the Certificate of Acceptance.

B. If a substantial number of plants are sickly and dead at the time of inspection, acceptance will not be granted, and the Contractor's responsibility for maintenance of all the plants shall be extended until replacements are made. All dead and unsatisfactory plants shall be promptly removed from the project. Replacements shall conform in all respects to the specification for new plants and shall be planted in the same manner.

PART 2 PRODUCTS

2.1 PLANT MATERIAL

A. The Contractor shall furnish and plant all plants shown on the drawings. Plants shall conform to measurements and species designated on plant list and standards as established in American Standard for Nursery Stock ANSI Z60.1-1996 or as most recently amended. All plants shall be typical of their species or variety in growth habit. Plant sizes, habit, rootballs, and containers shall be in accordance with the American Standard for Nursery Stock (ASNS, latest edition), Standards of the American Association of Nurserymen (AAN) as a minimum requirement for acceptance. No substitutions will be accepted, without prior approval of the Landscape Architect. Such requests shall be made at least one (1) month prior to nursery inspections. Requests shall list at least five (5) major nursery sources contacted for confirmation of unavailability.

B. All plant material shall be nursery grown and shall be shapely, well-grown, healthy, sound and free of disease, insect pests, eggs or larvae, and shall have a well developed root system. All plants shall be typical of their species or variety and shall have a normal habit of growth. They shall conform to the trade classification of "heavy specimen".

C. All trees and shrubs shall be freshly dug; no heeled-in plants and no plants from cold storage will be accepted. Plants shall have been transplanted or root pruned at least once in the last 3 years. All plants shall be hardy under climatic conditions similar to those in the locality of the project. All plant materials shall be properly identified by name on legible, weatherproof labels securely attached thereto.

D. Deciduous Trees: Provide trees of height and caliper scheduled or shown and with branching configuration recommended by ANSI Z60.1 for type and species required. Provide single stem trees except where special forms are shown or listed.

1. The height of trees (measured from the crown of the roots to the tip of the top branch) shall not be less than the minimum size designated. Take caliper measurement six inches above ground level. The trunk of each tree shall be a single trunk growing from a single unmutilated crown of roots. No part of the trunk shall be conspicuously crooked as compared with normal trees of the same variety. The trunk shall be free from sunscald, frost cracks, or wounds resulting from abrasions, fire and other causes. No pruning wounds shall be present having a diameter exceeding two inches and such wounds must show vigorous bark on all edges. Plants shall not be pruned prior to delivery.

E. Deciduous Shrubs: Provide shrubs of the height shown or listed and with not less than minimum number of canes required by ANSI Z60.1 for type and height of shrub required.

1. Shrubs shall meet the requirements for spread or height specified in the “Plant Schedule”. The measurements for height shall be taken from the ground level to the average height of the shrub and not to the longest branch. The thickness of each shrub shall correspond to the trade classification “No.

2. Single stemmed or thin plants will not be accepted. The side branches must be generous, well twigged, and the plant as a whole well branched to the ground. The plants must be in a moist vigorous condition, free from dead wood, bruises, or other root or branch injuries. Plants shall not be pruned prior to delivery.

F. Coniferous and Broad leafed Evergreens: Provide evergreens of sizes shown or listed. Dimensions indicate minimum spread for spreading and semi-spreading type evergreens and height for other types, such as globe, dwarf, cone, pyramidal, broad upright, and columnar. Provide normal quality evergreens with well-balanced form complying with requirements for other size relationships to the primary dimension shown.

G. Ground cover plants, vines, and perennials shall be of size, age and/or condition listed in the “Plant Schedule”. Plants shall be healthy, free of insects and diseases. Ground cover plants shall be potted. Perennials shall be container-grown. Vines shall be balled and burlapped or container-grown. Provide plants established and well rooted in removable containers or integral peat pots and with not less than minimum number and length of runners required by ANSI Z60.1 for the pot size shown or listed.

H. Container-grown stock shall have been in a container long enough for the root system to have developed sufficiently to hold its soil together firm and whole.

I. Container grown plants shall have sufficient roots to hold planting mix intact after removal from containers without being root-bound.

J. Plants that meet the measurements specified, but do not possess a normal balance between height and spread shall be rejected.

K. Plants shall not be pruned before delivery. Trees which have a damaged or crooked leader, or multiple leaders, will be rejected. Trees with abrasion of the bark, sunscalds, disfiguring knots or fresh cuts of limbs over 1-1/4 inches which have not completed calloused, will be rejected.

L. Certificates of inspection shall accompany the invoice for each shipment of plants as may be required by laws for transportation. File certificates with the construction manager prior to unloading of the material. Inspection at place of growth does not preclude rejection of the plants at the site.

M. Plant material which, under special conditions, is approved in advance by Landscape Architect to be planted after the specified seasons for planting shall be dug during the normal season for digging of the particular plant material and be stored and maintained in good health until planting. The Contractor shall assume all costs for maintaining plant material while it is being stored.

N. Plant List - If there is any discrepancy between quantities shown on the Plant List and work shown on the drawings, the Landscape Contractor shall supply the plants necessary to complete the work as intended on the drawings. Where the size of a plant on the Plant List is a variation between a minimum and maximum dimension, the sizes of the plants furnished will be equal to the average of the two dimensions. Where a single dimension is given, this dimension represents the minimum size of the plants to be furnished.

2.2 TOPSOIL

A. The landscape contractor shall be responsible for screening, amending and spreading existing topsoil.

B. Utilize previously stripped and stockpiled topsoil prior to obtaining additional loam borrow from off-site sources. If quantity of stockpiled topsoil is insufficient, provide additional loam borrow as required to complete the landscape work at no additional cost to the Owner

C. Topsoil, which has been stockpiled on the site, may be used provided it can be made to comply with these Specifications herein for loam borrow/planting soil as outlined in Section 32 92 00 – TURF AND GRASS

2.3 LOAM BORROW

A. The Contractor shall provide loam borrow, as outlined in Section 32 92 00 Turf and Grass.

2.4 SOIL AMENDMENTS

A. See Section 32 92 00 Turf and Grass - Part 2 - for soil amendments.

2.5 MULCH

A. Native shredded hemlock bark, 100 percent organic, aged at least one (1) year, having a moisture content not exceeding 40 percent, free of any disease, insects, and shall pass a 1 inch square mesh and be retained on a 1/8 inch square mesh. Mulch shall not contain pieces more than 1/4 inch thick or an excess of fine particles. Mulch shall be dark brown in color.

2.6 PLANT BACKFILL MIXTURE

A. Topsoil/loam, organic material and bone meal for plant backfill for both planting beds and individual plants shall be thoroughly premixed in the proportions of one (1) part of organic material with seven (7) parts of loam together with ten (10) pounds of bone meal per cubic yard of mixture or as directed by the Landscape Architect.

B. The plant backfill mixture shall have an acidity range of between 5.5 pH and 7.0 pH.

2.7 WATER

A. Water shall be furnished by the Contractor and shall be potable and suitable for irrigation and free from ingredients harmful to plant life. Hose and other watering equipment required for the work shall be furnished by the Contractor.

2.8 STAKING MATERIALS

A. Staking shall be at the discretion of the Landscape Architect.

B. Wire and hose shall NOT be used for staking and guying. Arbortape, or equal, shall be used to fasten trees to stakes.

C. Stakes shall be 2’ x 2” minimum hardwood stakes, pointed at one end. Length shall be 8’ minimum.

2.9 ANTI-DESICCANT

A. Anti-desiccant emulsion which provides a protective film over plant surfaces, permeable enough to permit transpiration, delivered in containers with manufacturer's directions. Anti-Desiccant shall be "Wiltpruf", manufactured by Nursery Specialty Products, Inc., Stubbins Road, Groton Falls, New York, or approved equal. Apply according to manufacturer's recommendations.

PART 3 EXECUTION

3.1 EXAMINATION

B. Inspect all surfaces and verify that they are in proper condition to receive the work of this Section.

C. Any defects, such as incorrect grading, etc., shall be reported to the Owner’s representative prior to beginning work.

D. Commencement of work by Contractor indicates acceptance of and full responsibility for planting areas.

3.2 PLANTING DATES

A. Plant within the following dates or as specified in drawing notes:
   1. Evergreen trees and shrubs:
      a. Spring: April 15-June 1
      b. Fall: September 1 – November 12
   2. Deciduous Trees and shrubs:
      a. Spring: April 1 – June 15
      b. Fall: October 1 – November 15

B. Planting shall be prohibited in frozen or muddy ground.

C. Special conditions may warrant a variance in the above dates. Contractor shall notify the Landscape Architect of the conditions and the proposed variance. Permission will be given if the variance is warranted.

D. Approximate planting dates schedule shall be furnished by Contractor to the Landscape Architect for approval. Material planted out-of-season shall be given extra care and attention by the Contractor. Out-of-season planting shall be entirely at the Contractor's risk.

E. Contractor shall schedule tree selection and digging operations so as to comply with nursery industry recognition of “Spring Dig Only”/“Fall Hazard” plant materials. No substitutions of plant materials will be allowed for fall planting based on unavailability due to the “Spring Dig Only”/“Fall Hazard” restrictions. Contractor shall have selected and had the material dug during the previous spring or shall obtain material from a nursery skilled at fall digging.

3.3 PREPARATION OF PLANTING BACKFILL MIXTURE

A. Mix specified soil amendments and fertilizers with topsoil and/or loam borrow, prior to spreading, at rates specified by testing agency and Landscape Architect. Delay mixing in of fertilizer if planting will not follow placing of planting soil within a few days. Thoroughly and evenly incorporate amendments throughout the soil by approved methods.

B. Topsoil/loam, organic material and bone meal for plant backfill for both planting beds and individual plants shall be thoroughly premixed in the proportions of one (1) part of organic material with seven (7) parts of loam together with ten (10) pounds of bone meal per cubic yard of mixture or directed by the Landscape Architect.

C. For pit and trench type backfill, mix amendments into planting soil prior to backfilling, and stockpile at site.

D. For planting beds, mix amendments for planting soil prior to planting.

E. Mix lime with dry soil prior to mixing of fertilizer.

F. Prevent lime from contacting roots of acid-loving plants.

G. Apply phosphoric acid fertilizer (other than that constituting a portion of complete fertilizers) directly to subgrade before applying planting soil and tilling.

H. Maintain at all times during the planting operations one or more stockpiles of approved planting soil.

3.4 EXCAVATION OF TREE PITS AND PLANTING BEDS

A. Stake out on the ground locations for trees and outlines of all planting beds. Obtain approval of Landscape Architect before excavation.

B. If rock, utilities, underground construction work, tree roots or obstructions are encountered in the excavation of shrub beds and tree pits, alternate locations may be selected by the Landscape Architect.

C. Prior to excavation of tree pits, Contractor shall remove soil and wrapping covering trunk flare. Measurement between trunk flare and bottom of root ball shall be determined for each tree prior to excavation of tree pit for each tree.

D. Excavate tree pits and planting beds to depths required by drawings. Remove subsoil and dispose of properly. Do not mix with planting soil or use as backfill. Tree pits shall be circular in outline. Tree pits shall be three times wider than the root ball diameter. Planting beds for shrubs shall be continuous and continue for at least 18 inches from the edge of ball. Scarify bottom and edges of pit.

E. Test drainage of planting beds and pits by filling with water twice in succession. Owner's representative shall be present at time of testing. Conditions permitting the retention of water for more than 24 hours shall be brought to attention of the Landscape Architect.

F. Notify the Landscape Architect in writing of all soil or drainage conditions which the Contractor considers detrimental to growth of plant material.

3.5 PLANTING

A. Remove all wrappings so that the plant canopy and stems and trunks may be reviewed for damage or disease.

B. Place trees in the center of the holes. Set the trunk flare of the plant 2-3" above finish grade.

C. Cut and remove all ropes, wires, burlap, synthetic wrap, and wire baskets completely from root balls and dispose of off site. Owner's representative shall be shown removed materials prior to backfilling and disposal off site.

D. Set plant plumb, turned to face best side of plant forward, and brace firmly in position. Loosen surface soil of root ball and comb out any exposed roots. Prune all broken or girdling roots.

E. Use planting mix to backfill plant pits. Planting mix shall be a minimum of 12" deep within planting/shrub bed areas. See Drawings for specific depths. Place planting mix in layers not to exceed 8 inches. When plant pits have been backfilled approximately two-thirds full, water thoroughly before installing remainder of the planting soil to eliminate air pockets. Add remainder of backfill. Using the end of a shovel handle, push handle into soil at a 45 degree angle down into backfill to provide water access to eliminate air pockets. Do not use foot to compact soil. Holes should be provided around circumference of root ball. Add water until soil is thoroughly saturated.

F. Score or butterfly cut root ball of all container grown plants prior to planting.

G. Form 3" deep soil saucers around tree pits and shrub beds.

H. Water all plants immediately after planting. All plants shall be flooded with water twice within first 24 hours of planting.

I. Mulch all pits and beds to depth indicated on details immediately after first watering. Depth shall be measured after settlement. No mulch shall be applied prior to first watering of plants.

J. Plants shall not be wrapped after installation. A shade barrier of plastic mesh shall be placed at the base of all trees whose flares were covered with soil to prevent sunscald on the newly exposed bark. Mesh shall be at 12" in height and shall not come into contact with the truck.

3.6 PRUNING

A. Each tree and shrub shall be pruned by a Massachusetts Certified Arborist in accordance with American Nurserymen Association standards to preserve the natural character of the plant and in a manner to meet its particular requirements in the landscape.

B. Pruning and trimming shall include the following:
   1. Remove all dead wood, suckers and broken or badly bruised branches. Never cut a leader.
   2. Prune to preserve natural character of plant.
   3. Use only clean, sharp tools.
   4. Disinfect tools between each plant.
      a. Wound shall not be painted.
      b. Apply anti-desiccant to foliage if conditions warrant as deemed appropriate by Landscape Contractor or Landscape Architect.

C. Time of Pruning:
   1. At installation: pruning shall consist of removing dead branches, and broken or badly bruised branches.
   2. Near end of Guarantee Period: prune as noted in A, above and to remove rubbing branches etc.

3.7 CLEAN-UP

A. Soil or other material brought onto paved areas shall be promptly removed. Keep paved areas clean at all times.

B. Upon completion of work under this section, all excess stones, debris and soil resulting from planting work shall be cleaned up and removed from the project site.

C. Broom and hose clean all pavements.

D. Repair any damage to site or structures to restore them to original condition at no additional cost to the Owner.

3.8 MAINTENANCE AND PROTECTION OF PLANTINGS

A. Maintenance shall begin immediately after each plant is planted and shall continue until final acceptance, but in no case less than one year after substantial completion of planting.

B. Maintenance shall include but not be limited to the following:
   1. Maintenance of new planting shall consist of pruning, watering, cultivating, weeding, mulching, tightening and repairing of stakes or guys, resetting plants to proper grades or upright position, restoration of the planting saucer and furnishing and applying such sprays as are necessary to keep the planting free of insects and disease.
   2. Planting areas and plants shall be protected at all times against trespassing and damage of all kinds for the duration of the maintenance period. If any plants become damaged or injured, they shall be treated or replaced as directed at no additional cost.
   3. All plantings shall be watered at least twice per week during maintenance period. At each watering the soil around each tree or shrub shall be thoroughly saturated. If sufficient moisture is retained in the soil, as determined by the Landscape Architect, the required watering may be reduced.
   4. Watering shall be provided from April through November.

C. The Contractor shall provide a maintenance manual for all plant material under his direction. This manual shall contain all necessary maintenance and scheduling information which will enable the Owner to maintain new plantings in a vigorous condition. Before planting work is completed, one copy of the manual is to be submitted to the Landscape Architect for approval. Before the acceptance of the planting

work, two copies of the manual shall be furnished to the Owner for his future reference. The Landscape Architect may require re-submittals of the Owner maintenance manual if it is determined that the information provided is not sufficient to allow for proper maintenance.

3.9 REJECTION AND REPLACEMENT

A. Promptly remove rejected plant material from site.

B. Replace as soon as planting conditions permit all such rejected material with plants of same species and of the quality stated in Contract documents.

3.10 ONE YEAR GUARANTEE AND INSPECTIONS

A. One year after the date of acceptance, the Contractor, at the request of the Owner, shall arrange for a meeting with the Landscape Architect to review the condition of the plantings. Prior to the meeting, the Contractor shall remove tree support systems and tags on plants. The Contractor's certified arborist shall provide final pruning of trees for shape and form and to remove items such as crossing branches, dead or broken branches. Any disease or insect pests, eggs or larvae shall be treated/removed. A letter from the arborist certifying the above has been completed shall be provided with the meeting request. The Landscape Architect will provide a written report on the results of the inspection. At the Owner's discretion, the Contractor shall replace any dead or unhealthy plants at this time or provide a credit to the Owner.

END OF SECTION

SECTION 329200
TURF AND GRASSES

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. This section is only a portion of the Contract Documents. All of the Contract Documents, including Division 1 General Requirements, apply to this section.

1.2 SECTION INCLUDES

A. This Section specifies requirements for topsoil, seed and sod for site landscape areas.

B. This work includes:
   1. Furnishing, spreading, and fine grading of topsopil and loam borrow.
   2. Application of lime and fertilizer.
   3. Seeding, sodding and mulching.
   4. Maintenance of seeded and sodded areas.

1.3 SUBMITTALS

A. Manufacturers Product Data:
   1. Submit material specifications and installation instructions where appliable attesting that the following materials meet the requiremnents specified:
      a. Fertilizer
      b. Seed
      c. Lime
      d. Organic Matter
   2. Submit product information with mix ratios and amounts for hydromulching to be utilized during hydroseeding operations for approval. Submit a certified statement as to the number of pounds and types of fertilizer, amounts and types of seed mixture and processed fiber per one hundred (100) gallons of water.

B. Soil Test Reports:
   1. Prior to ordering the topsoil, submit soil test report to the Engineer for review and approval. Do not order materials until approval has been obtained. Delivered materials shall closely match the approved samples.

C. Certificates
   1. A manufacturer's Certificate of Compliance to the specifications shall be submitted by the manufacturers with each shipment of each type of seed. These certificates shall include the guaranteed percentages of purity, weed content and germination of the seed, and also the net weight and date of shipment. No seed shall be sown until the Contractor has submitted the certificates.

D. Maintenance Manual:
   1. The contractor shall submit a written manual, prepared for the Owner, that outlines a schedule for proper maintenance of the lawns. This schedule should include timing and methods for mowing, watering, aeration, fertilization, liming, and other lawn maintenance operations.

E. Submittal Schedule:
   1. Before Installation:
      a. Manufacturer's Product data

b. Soil Test Reports
c. Seed Certification
d. Hydroseed mix
e. Schedule for Installation

2. After Installation and before Acceptance:
a. Maintenance Manual

1.4 QUALITY ASSURANCE

A. All work shall be performed by personnel experienced in lawn installation under the full time supervision of a qualified foreman.

B. Work shall be coordinated with all other trades on site.

1.5 DELIVERY, STORAGE AND HANDLING

A. Deliver material to the site in original unopened packages, showing weight, manufacturer's name and guaranteed analysis.

B. Store materials in a manner that their effectiveness and usability will not be diminished or destroyed. Materials shall be uniform in composition, dry, unfrozen and free flowing. Any material which has become caked or otherwise damaged or does not meet specified requirements will be rejected.

C. Loam borrow and topsoil (if available) shall be provided and spread by the landscape contractor.

D. Source Quality Control:
1. Invasive plant material: Source of loam borrow and the surrounding area shall be certified free of invasive plants, especially knotweed, by a licensed plant scientist or horticulturalist.
2. Analysis and standards: Package standard products with manufacturers certified analysis. For other materials, provide analysis by recognized laboratory made in accordance with methods established by the Association of Official Agriculture Chemists, wherever applicable.

E. All work shall be performed by personnel experienced in lawn installation under the full time supervision of a qualified foreman.

F. Work shall be coordinated with all other trades on site.

1.6 TESTING LABORATORY SERVICES

A. All topsoil obtained from on-site and/or loam borrow obtained from off-site used for work of this section shall be tested prior to being spread or mixed. All testing shall be done by an approved independent test laboratory or by an agriculture unit of the State University System in accordance with the most current “Standards” of the Association of Official Agricultural Chemists. A single lab shall perform all testing. Contractor shall provide required representative samples of material proposed for use to testing facility for analysis and recommended treatment. Separate tests are required for each loam borrow source. The Contractor shall bear any and all costs incurred in testing and analysis. Test reports shall also contain specific recommendations as to the exact types, times and rates of application of soil additives and fertilizers based upon the soil test results and type of material to be planted. A copy of all soil test reports shall be provided to the Engineer. Materials shall be stockpiled and covered so as not to interfere with other work or with other subgrade or fill materials. Recommendations shall be followed during planting operations.

B. Report shall have name of project, date of testing, and location of sample source. Analysis shall include:

1. Classification of soil by mechanical sieve with soil classification
2. Percent sand, silt and clay particles
3. Percent organic content
4. Percent soluble salt index (1:2 soil-water ratio)
5. Percent pH (1:1 soil-water ratio and buffer)
6. Percent Nitrogen (nitrate and ammonium), Phosphorous and Potash
7. Calcium, Aluminum, Magnesium, Manganese, Ferric Iron and Sulfur
8. Lead

C. Recommendation shall include appropriate amendment requirements including their composition and rate and means of application. Recommendations shall be provided for various types of planting such as seeding, deciduous and ericaceous plant material.

D. Test reports shall have been conducted within the three (3) months prior to planting operations. If planting operations extend for more than one season, Contractor shall provide additional testing reports at no additional cost to the Owner.

E. Note that any and all materials and procedures with respect to soil additive and fertilizers, contained herein, are approximate and that all soil additives will be adjusted to comply with test reports and with the recommendations of the Engineer.

1.7 INSPECTION FOR ACCEPTANCE

A. Condtions of Acceptance:
1. Acceptance shall be given for the entire portion of the lawn areas. No partial acceptance will be given.
2. Lawns shall exhibit a uniform, thick, well-developed stand of grass. Lawn areas shall have not bare spots in excess of two inches in diameter and bare spots shall comprise no more than two percent of the total area of that lawn.
3. Lawn areas shall not exhibit signs of damage from erosion, washouts, gullies, or other causes.
4. Pavement surfaces and site improvements adjacent to lawn areas shall be clean and free of spills or overspray from placing or handling of topsoil and seeding operations.

B. Inspection and Acceptance:
1. Upon written request of the Contractor, the Engineer will inspect all lawn areas to determine completion of work. This request must be submitted at least five days prior to the anticipated inspection date.
2. If the lawn areas are not acceptable, the Engineer will indicate corrective measures to be taken, and shall extend the maintenance period as necessary for the completion of the work. The Contractor shall request a second inspection of the lawns after corrective measures have been accomplished. This process shall be repeated until the total area of the lawn being inspected is acceptable.
3. When the lawn areas are acceptable, a meeting of the Contractor and Owner's representative will be arranged to accept the lawn work. A final inspection will be a part of this meeting. At this meeting, the Contractor shall be furnished with a written acceptance of the lawn section being approved. The Contractor shall turn over maintenance of the lawn to the Owner at this meeting.
4. Following the acceptance of lawns, the Contractor shall provide the Owner with access to all lawn areas as required for the Owner's maintenance work.

C. Site Clean-Up:
1. The Contractor shall leave the site in a clean and neat condition. Final acceptance will not be granted until this condition is met.

PART 2 PRODUCTS

2.1 SOILS

A. If available, utilize previously stripped and stockpiled topsoil prior to obtaining additional loam borrow from off-site sources. If quantity of stockpiled topsoil is insufficient, provide additional loam borrow as required to complete the landscape work at no additional cost to the Owner.
   1. Topsoil, which has been stockpiled on the site, may be used provided it can be made to comply with the Specifications herein for loam borrow/planting soil.
   2. Provide a minimum depth of six (6) inches of planting soil in all areas indicated for seeding.
   3. Provide 12" minimum depth for planting beds.

B. The Contractor shall provide ½" screened loam borrow, which shall be a "loam", "sandy loam" or "fine sandy loam" as determined by mechanical analysis and based on the "USDA Textural Classification". It shall conform to the following mechanical analysis:

C. Maximum grain size shall be one-half (1/2) inch largest dimension. The maximum retained on the one-quarter inch sieve shall be 20 percent by weight of the total sample. Test shall be by combined hydrometer and wet sieving in compliance with ASTM D422 after destruction of organic matter by ignition.

D. Loam borrow shall consist of natural topsoil, free from subsoil, obtained from an area that has never been stripped. The location of the source of loam shall be submitted for approval. It shall be removed to a depth of one (1) foot or less if subsoil is encountered. Planting soil shall be of uniform quality screened free of hard clods, stiff clay, hardpan, sods, partially disintegrated stone, lime, cement, ashes, slag, concrete, tar residues, tarred paper, boards, chips, glass, sticks, or any other undesirable material.

E. Loam borrow shall be screened loam and shall be free of plants and their roots, debris, and other debris and other extraneous matter. It shall be uncontaminated by salt, water, foreign matter and substances harmful to plant growth. The electrical conductivity (EC2) of a 1:2 soil-water suspension shall be equal to or less than 1.0 milliohms/cm. (test material passing #4 sieve).

F. Loam borrow shall have an acidity range of pH 5.5 to pH 7.0 and shall contain not less than 7% nor more than 10% (20% for planting beds) organic matter as determined by the loss on ignition of oven-dried samples. Test samples shall be oven-dried to a constant weight at a temperature of 230°F ± 9°. To adjust organic matter content, the soil may be amended, prior to site delivery, by the addition of composted humus. Use of organic amendments is acceptable only if random soil sampling indicates thorough incorporation.

G. All soil provided from off-site sources shall be brought to the site meeting all specification requirements. There shall be no mixing or amending of imported soil on site. No loam shall be spread prior to screening and review and approval by the Engineer. The loam borrow must not be handled or moved when in a wet or frozen condition.

H. To adjust organic matter content, the soil may be amended, prior to delivery, by the addition of composted leaf mold or other acceptable organic matter. Use of organic amendments is accepted only if random soil sampling indicates a thorough incorporation of these materials.

I. If limestone is required to amend the screened loam to bring it within pH range, no more than 200 pounds of limestone per 1,000 square feet of loam may be incorporated into the soil, (or 50 pounds of limestone per 1,000 square feet if applied by surface application) within a single season.

J. Prior to placing loam for lawns, pH shall be adjusted by means of soil additives to not less than 6.0 nor more than 6.8, as recommended by soils tests.

K. Commercial fertilizer, limestone, humus, organic matter or other additives shall be used to counteract soil deficiencies as recommended by the soil analysis and as directed by the Engineer.

L. Testing shall confirm that the topsoil, obtained from the site or loam from off-site, contains not less than 4 percent nor more than 20 percent organic matter as determined by the loss on ignition of oven-dried samples. Test samples shall be oven-dried to a constant weight at a temperature of 230 degrees F (+5) and certified test results shall be sent to the Engineer by the laboratory for approval.

2.2 SOIL CONDITIONING MATERIALS

A. Lime: Lime shall be an approved agricultural limestone containing no less than 50 percent total carbonates, and 25 percent total magnesium with a neutralizing value of at least 100 percent. The material shall be ground to such a fineness that 40 percent will pass through a No. 100 U.S. Standard Sieve, and 98 percent will pass through a No. 20 U.S. Standard Sieve. The lime shall be uniform in composition, dry and free flowing, and shall be delivered to the site in the original, unopened containers, each bearing the manufacturer's guaranteed analysis. Any lime that becomes caked or otherwise damaged (making it unsuitable for use) will be rejected.

B. Fertilizer: Fertilizer shall be a complete, standard product complying with State and Federal Fertilizer Laws. The fertilizer shall be uniform in composition, dry and free flowing, and shall be delivered to the site in the original, unopened containers, each bearing the manufacturer's guaranteed analysis, and submitted to the Engineer for approval. Fertilizer shall contain the following minimum percentage of available plant food by weight: 10 percent nitrogen, 10 percent phosphorus, 10 percent potash, in which 75 percent of the nitrogenous elements shall be derived from organic sources or Urea-form. Exact percentages of fertilizer may vary in accordance with the soil test report. Any fertilizer that becomes caked or otherwise damaged (making it unsuitable for use) will be rejected.

C. Superphosphate: Superphosphate shall be composed of finely ground phosphate rock, as commonly used for agricultural purposes, and containing not less than 20 percent available phosphoric acid. The superphosphate shall be delivered to the site in the original, unopened containers, each bearing the manufacturer's guaranteed analysis and submitted to the Engineer for approval. Any superphosphate that becomes caked or otherwise damaged (making it unsuitable for use) will be rejected.

D. Manure - shall be well-rotted, unbleached stable manure not less than eight months and not more than two years old. It shall be free from sawdust, shavings or refuse of any kind and shall not contain over twenty-five (25) percent straw. The Contractor shall furnish information as to the kind of disinfectant or chemicals, if any, that may have been used in storage of the manure.

E. Sulfur - shall be in elemental granular form, powder shall not be used. Aluminum sulfate shall not be used.

F. Bonemeal - shall be of commercial quality, raw, finely ground; with 4 percent nitrogen and 20 percent phosphoric acid.

G. Iron Sulfate – iron sulfate shall be constituent of an approved horticultural product produced as a fertilizer.

H. Magnesium Sulfate – Magnesium Sulfate shall be a constituent of an approved horticultural product produced as a fertilizer.

I. Potash – potash (potassium oxide) shall be a constitute of an approved horticultural product produced as a fertilizer.

2.3 WATER

A. Water shall be furnished by the Contractor, suitable for irrigation, and free from ingredients harmful to plant life. Hoses and other watering equipment required for the work shall be furnished by the Contractor.

2.4 SEED

A. Lawn Seed: Seed shall be fresh, clean and selected from the previous year's crop; weed seed content not to exceed 1 percent; complying with applicable Federal and State seed laws; furnished and delivered premixed in unopened containers in the following proportions:

		Percent Proportion	Percent Germination Minimum	Percent Purity Minimum
1.	For Lawns:			
	Creeping Red Fescue	50%	85%	95%
	Kentucky Bluegrass (improved varieties)	40	85	90
	Manhattan Perennial Rye	10	90	95
2.	For Temporary Lawns:			
	Annual Rye	60%	90%	95%
	Perennial Rye	40	90	95

B. Restoration seed mix for slopes shall be by New England Wetland Plants Inc., Amherst, MA.
1. Submit a certificate from the supplier outlining the type and percentage of plants in the mix.
2. Submit a certificate from the supplier outlining the type and percentage of plants in the mix.

2.5 SOD

A. Composition: Nursery grown sod composed of grasses grown from the following seed mixture:

B. Characteristics: Sod shall be well-rooted turf, free from weeds, insect pests, and disease. It shall be machine-cut to a uniform soil thickness of ¾-inch plus or minus, and to industry standard length and widths. Sod shall be harvested and replanted within 36 hours. Soil on sod pads shall be kept moist at all times.

2.6 HYDROSEED MIX

A. The Contractor shall submit a certified statement as to number of pounds of fertilizer, amounts and types of grass seed, and processed fiber, per 100 gallons of water.

PART 3 EXECUTION

3.1 SEED AND SOD BED PREPARATION

A. Grade all lawn areas to finish grades as indicated on the drawings. When no grades are shown, areas shall have a smooth and continual grade between existing or fixed controls and elevations shown on Drawings. Roll, scarify, and rake, as required, to obtain uniform, even lawn surfaces. All lawn areas shall slope to drain away from buildings / structures. Finish grades shall be approved by the Engineer.

B. If no new topsoil is required, thoroughly loosen soil in areas to be seeded or sodded to a minimum depth of 6 inches with approved power or hand equipment. Remove rocks, debris, clods and other undesirable substances, and maintain grading and drainage patterns.

C. When topsoil is required, place topsoil on previously scarified subsoil to a minimum depth of 6 inches. Subsoil shall be cleaned of debris and stones larger than 2 inches prior to topsoil spreading.

D. Apply fertilizer, superphosphate, and lime, at rates recommended by the testing agency and approved by the Engineer. Thoroughly and evenly incorporate fertilizer and lime into the soil to a depth of 3 inches, by discing or other approved methods. In areas inaccessible to power equipment, fertilizer and lime shall be incorporated into the soil by manual methods. At existing trees, the depth shall be adjusted to avoid disturbance of the roots.

E. Seeding and sodding shall be done immediately after final grading, provided the bed has remained in a good, friable condition, and has not become muddy or compacted. Any undulations or irregularities in the surface resulting from fertilizing, liming, tilling, or other causes, shall be egarded prior to seeding and sodding. The surface shall be free of stones, cleared of all trash, debris, roots, brush, wire, grade stakes and other objects that would interfere with establishment of grass and grass maintenance operations.

3.2 HYDROSEED BED PREPARATION

A. Prepare seed bed for hydroseeding the same as for seeding and sodding, but do not incorporate fertilizer into the top 3 inches of topsoil.

B. Hydroseeding shall be applied with a spray machine designed for this purpose and approved by the Engineer.

3.3 SEEDING

A. Seeding shall be done between April 1 to June 1, or August 15 to October 15, except as otherwise authorized in writing by the Engineer.

B. All disturbed areas not covered by buildings, paving, or otherwise developed, shall be seeded.

C. In areas having slopes 3:1 or steeper, and in drainage swales, the Contractor shall carry out a separate overseeding operation immediately after sowing the specified seed mix. The overseeding shall be sown at the rate of 3 pounds per 1,000 square feet or as required by seed mix supplier (New England Wetland Plants Inc. or approved equal.)

3.4 HYDROSEEDING

A. Designated areas shall be hydroseeded only after written approval of the finished grading by the Engineer.

B. Fertilizer shall be added to the hydroseeding slurry at the rate of five pounds per 1,000 square feet.

C. Seed shall be added to the hydroseeding slurry at the rate of seventy-five pounds per acre.

D. Wood cellulose fiber mulch shall be added to the hydroseeding slurry at the rate of two tons per acre.

E. A mobile tank with a capacity of at least 500 gallons shall be filled with water, and the required amounts of seed, wood cellulose mulch and fertilizer. The slurry shall be thoroughly mixed by means of positive agitation in the tank. The slurry shall be applied by means of a centrifugal pump using the turret or hose application technique from the mobile tank. The hose or turret shall be equipped with a seeding nozzle of a proper design to ensure even distribution of the solution over the area to be seeded and shall be operated by a person thoroughly familiar with this type of seeding operation.

3.5 MAINTENANCE AND PROTECTION

A. Maintenance of seeded and sodded areas shall begin immediately after installation and continue until final acceptance, but in no case, less than the following period.

1. Sixty (60) days after substantial completion of seeding.
    a. Maintenance may continue until the next growing season if in the opinion of the Engineer the season enters winter dormancy and no maintenance should continue.
    b. Seeded areas shall be maintained until all areas have a close stand of grass, have no bare spots greater than two inches in diameter, and at least 90% of the grass established shall be permanent grass species.

B. Maintenance includes watering, weeding, mowing and edging, reseeding, replacement of dead sod, disease and insect pest control, repair of all erosion damage, and any other procedures consistent with good horticultural practice, required to ensure normal, vigorous, and healthy growth. Maintenance shall continue until final acceptance of the work.

C. Maintenance shall also include all temporary protection fences, barriers, signs, and all other work incidental to proper maintenance.

D. After the grass has sprouted, all bare areas shall be re-seeded or re-sodded repeatedly until all areas are covered with a satisfactory growth of grass. At the time of the first cutting, lawn should be mowed not less than 2-1/2 inches high. Sod shall be maintained between 1-3/4 and 2-1/2 inches high. Do not remove more than one-third of the grass blade. All lawns shall receive at least three mowings before acceptance.

E. The seeded and sodded areas shall be maintained in a continuous moist condition, satisfactory for good germination and growth of grass until acceptance.

F. Six weeks after the seeded areas have become established, fertilizer shall be applied over the entire area. Sod shall be fertilized at the time of the second mowing.

G. Maintenance Manual: The contractor shall submit a written manual, prepared for the Owner, that outlines a schedule for proper maintenance of the lawns. This schedule should include timing and methods for mowing, watering, aeration, fertilization, liming, and other lawn maintenance operations.

3.6 SITE CLEAN-UP

A. The Contractor shall leave the site in a clean and neat condition. Final acceptance will not be granted until this condition is met.

B. Protect seeding work and materials from damage due to landscape operations, operations by other contractors or trades, and trespassers.

C. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged seeded areas as directed.

3.7 INSPECTION AND ACCEPTANCE

A. After the minimum specified maintenance period, the Contractor shall request the Engineer, in writing, for an inspection to determine whether the grass stand is acceptable.
    1. The request shall be received at least ten (10) days before the anticipated date of inspection.
    2. Acceptance shall be given for the entire portion of the grass areas. No partial acceptance will be given.
    3. Pavement surfaces and site improvements adjacent to lawn areas shall be clean and free of spills or overspray from placing or handling of topsoil and seeding operations.

B. If the grass material and workmanship are acceptable, written notice will be given by the Engineer to the Contractor of a “Certificate of Acceptance”.

1. If the seeding work is unacceptable the Contractor shall continue the maintenance of the lawn areas by over seeding, patching, replacing erosion control materials, applying additional amendments as required, and other work as necessary to achieve an acceptable stand of grass as determined by the Engineer.
2. When the grass areas are acceptable, a meeting of the Contractor and Owner's representative will be arranged to accept the seeding work. A final inspection will be a part of this meeting. At this meeting, the Contractor shall be furnished with a written acceptance of the lawn section being approved. The Contractor shall turn over maintenance of the lawn to the Owner at this meeting.

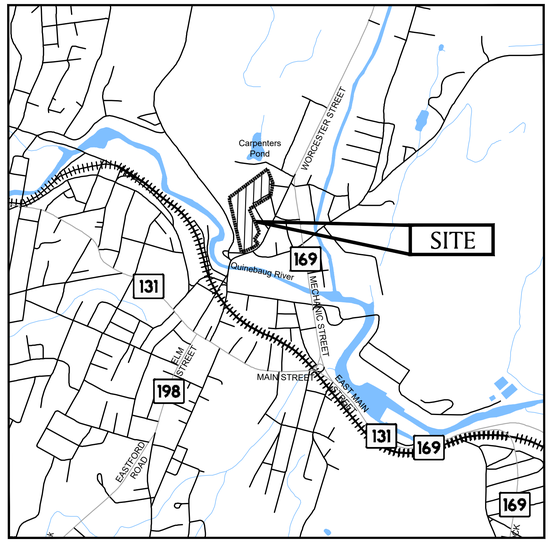
C. Remove erosion control measures after grass establishment period and repair the area to match adjacent conditions.

END OF SECTION

CAPILLO PARK AND MCCANN FIELDS UPGRADES

1-45 HENRY STREET
SOUTHBRIDGE, MASSACHUSETTS

JUNE 22, 2022



SITE MAP

500 0 1000 2000 3000 feet
SCALE: 1" = 1,000'

INDEX OF DRAWINGS

Sheet Number	Sheet Title
COVER	COVER
L-1.0	OVERALL SITE PLAN
L-2.0	SITE PREPARATION AND EROSION CONTROL PLAN
L-3.0	LAYOUT AND MATERIALS PLAN
L-4.0	GRADING AND DRAINAGE PLAN
L-5.0	PLANTING PLAN
L-6.0	DETAILS
L-6.1	DETAILS

PREPARED FOR:

TOWN OF SOUTHBRIDGE
41 ELM STREET
SOUTHBRIDGE, MA 01550

ISSUED FOR BID

PREPARED BY:

BSC GROUP
655 Winding Brook Drive
Glastonbury, Connecticut 06033
860 652 8227

JOB NO: 61165.00 DWG NO: SHEET COVER

NORTH

BACK SOFTBALL FIELD

REPLACE FENCE MESH AT FIELD - ALT. NO. 2

PARKING AREA

MCCANN FIELDS

LITTLE LEAGUE FIELD

FRONT SOFTBALL FIELD

ADA ACCESSIBLE SWINGS

ADA ACCESSIBLE PATH

BASKETBALL COURT

HANDBALL COURT

HENRY STREET

MARTIN STREET

SNOW STREET

MORTON STREET

WORCESTER STREET

SKATE PARK

JOE CAPILLO PARK

ISSUED FOR BID

CAPILLO PARK AND MCCANN FIELDS UPGRADES - JUNE 22, 2022

[redacted] No. 29098

CAPILLO PARK AND MCCANN FIELDS UPGRADES

1-45 HENRY STREET

IN

SOUTHBRIDGE MASSACHUSETTS

OVERALL SITE PLAN

JUNE 22, 2022

REVISIONS:

PREPARED FOR:

TOWN OF SOUTHBRIDGE
41 ELM STREET
SOUTHBRIDGE, MA 01550

BSC GROUP
655 Winding Brook Drive
Glastonbury, Connecticut 06033
860 652 8227

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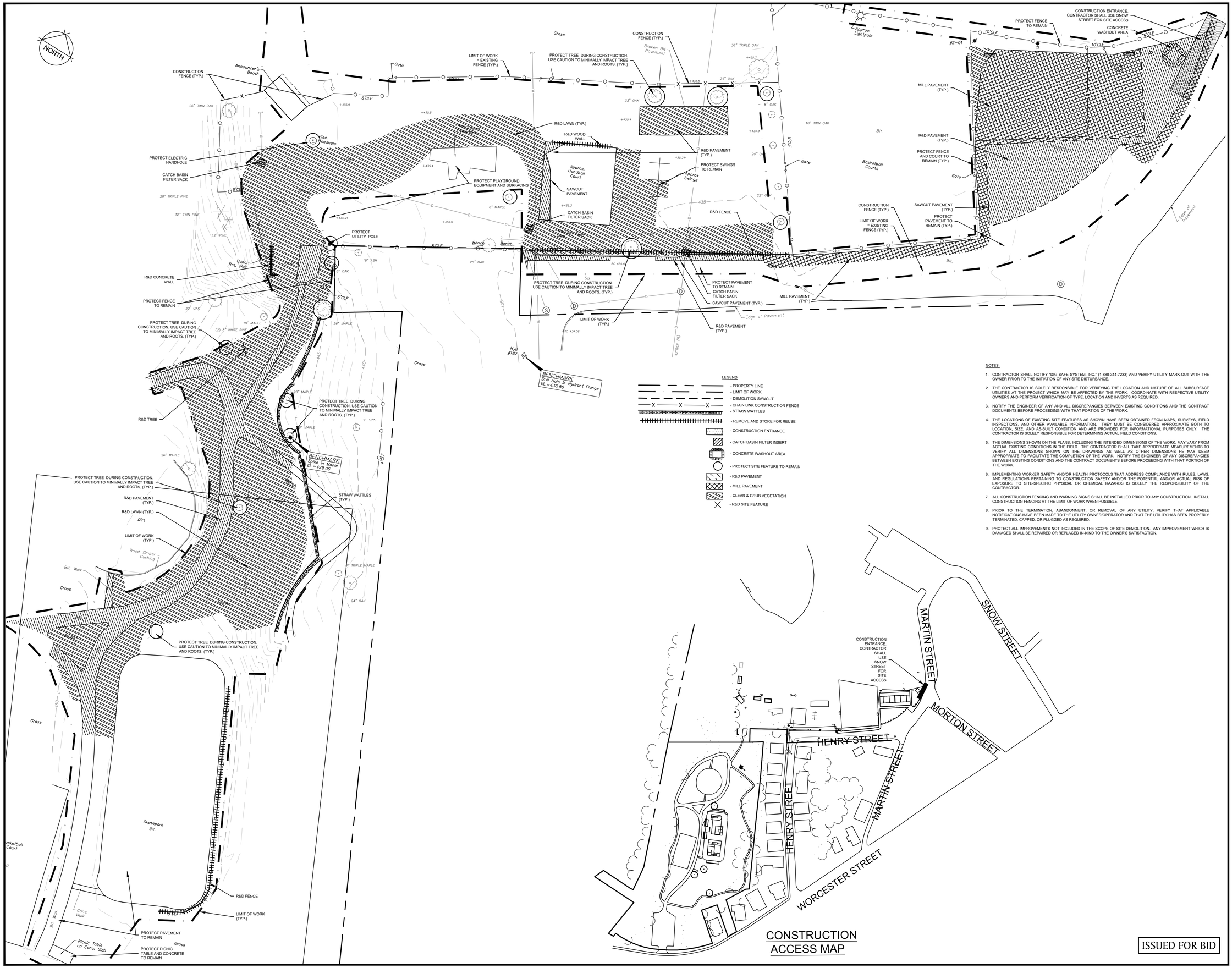
SCALE: 1" = 40'

0 20 40 80 FEET

FILE: 61165.00-LM.DWG

DWG. NO: L-1.0

JOB. NO: 61165.00



LEGEND

- PROPERTY LINE
- LIMIT OF WORK
- DEMOLITION SAWCUT
- CHAIN LINK CONSTRUCTION FENCE
- STRAW WATTLES
- REMOVE AND STORE FOR REUSE
- CONSTRUCTION ENTRANCE
- CATCH BASIN FILTER INSERT
- CONCRETE WASHOUT AREA
- PROTECT SITE FEATURE TO REMAIN
- R&D PAVEMENT
- MILL PAVEMENT
- CLEAR & GRUB VEGETATION
- R&D SITE FEATURE

NOTES:

1. CONTRACTOR SHALL NOTIFY "DIG SAFE SYSTEM, INC." (1-888-344-7233) AND VERIFY UTILITY MARK-OUT WITH THE OWNER PRIOR TO THE INITIATION OF ANY SITE DISTURBANCE.
2. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING THE LOCATION AND NATURE OF ALL SUBSURFACE UTILITIES AT THE PROJECT WHICH MAY BE AFFECTED BY THE WORK. COORDINATE WITH RESPECTIVE UTILITY OWNERS AND PERFORM VERIFICATION OF TYPE, LOCATION AND INVERTS AS REQUIRED.
3. NOTIFY THE ENGINEER OF ANY AND ALL DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH THAT PORTION OF THE WORK.
4. THE LOCATIONS OF EXISTING SITE FEATURES AS SHOWN HAVE BEEN OBTAINED FROM MAPS, SURVEYS, FIELD INSPECTIONS, AND OTHER AVAILABLE INFORMATION. THEY MUST BE CONSIDERED APPROXIMATE BOTH TO LOCATION, SIZE, AND AS-BUILT CONDITION AND ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL FIELD CONDITIONS.
5. THE DIMENSIONS SHOWN ON THE PLANS, INCLUDING THE INTENDED DIMENSIONS OF THE WORK, MAY VARY FROM ACTUAL EXISTING CONDITIONS IN THE FIELD. THE CONTRACTOR SHALL TAKE APPROPRIATE MEASUREMENTS TO VERIFY ALL DIMENSIONS SHOWN ON THE DRAWINGS AS WELL AS OTHER DIMENSIONS HE MAY DEEM APPROPRIATE TO FACILITATE THE COMPLETION OF THE WORK. NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH THAT PORTION OF THE WORK.
6. IMPLEMENTING WORKER SAFETY AND/OR HEALTH PROTOCOLS THAT ADDRESS COMPLIANCE WITH RULES, LAWS, AND REGULATIONS PERTAINING TO CONSTRUCTION SAFETY AND/OR THE POTENTIAL AND/OR ACTUAL RISK OF EXPOSURE TO SITE-SPECIFIC PHYSICAL OR CHEMICAL HAZARDS IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
7. ALL CONSTRUCTION FENCING AND WARNING SIGNS SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION. INSTALL CONSTRUCTION FENCING AT THE LIMIT OF WORK WHEN POSSIBLE.
8. PRIOR TO THE TERMINATION, ABANDONMENT, OR REMOVAL OF ANY UTILITY, VERIFY THAT APPLICABLE NOTIFICATIONS HAVE BEEN MADE TO THE UTILITY OWNER/OPERATOR AND THAT THE UTILITY HAS BEEN PROPERLY TERMINATED, CAPPED, OR PLUGGED AS REQUIRED.
9. PROTECT ALL IMPROVEMENTS NOT INCLUDED IN THE SCOPE OF SITE DEMOLITION. ANY IMPROVEMENT WHICH IS DAMAGED SHALL BE REPAIRED OR REPLACED IN-KIND TO THE OWNER'S SATISFACTION.

CONSTRUCTION ACCESS MAP

ISSUED FOR BID

CAPILLO PARK AND MCCANN FIELDS UPGRADES - JUNE 22, 2022

~~DANIELLE E. EASTERLA~~ No. ~~29098~~

CAPILLO PARK AND MCCANN FIELDS UPGRADES

1-45 HENRY STREET

IN

SOUTHBRIDGE
MASSACHUSETTS

SITE PREPARATION AND EROSION CONTROL PLAN

JUNE 22, 2022

REVISIONS:

PREPARED FOR:
TOWN OF SOUTHBRIDGE
41 ELM STREET
SOUTHBRIDGE, MA 01550

BSC GROUP
655 Winding Brook Drive
Glastonbury, Connecticut 06033
860 652 8227

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SCALE: 1" = 20'

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DWG. NO:
JOB. NO: 61165.00

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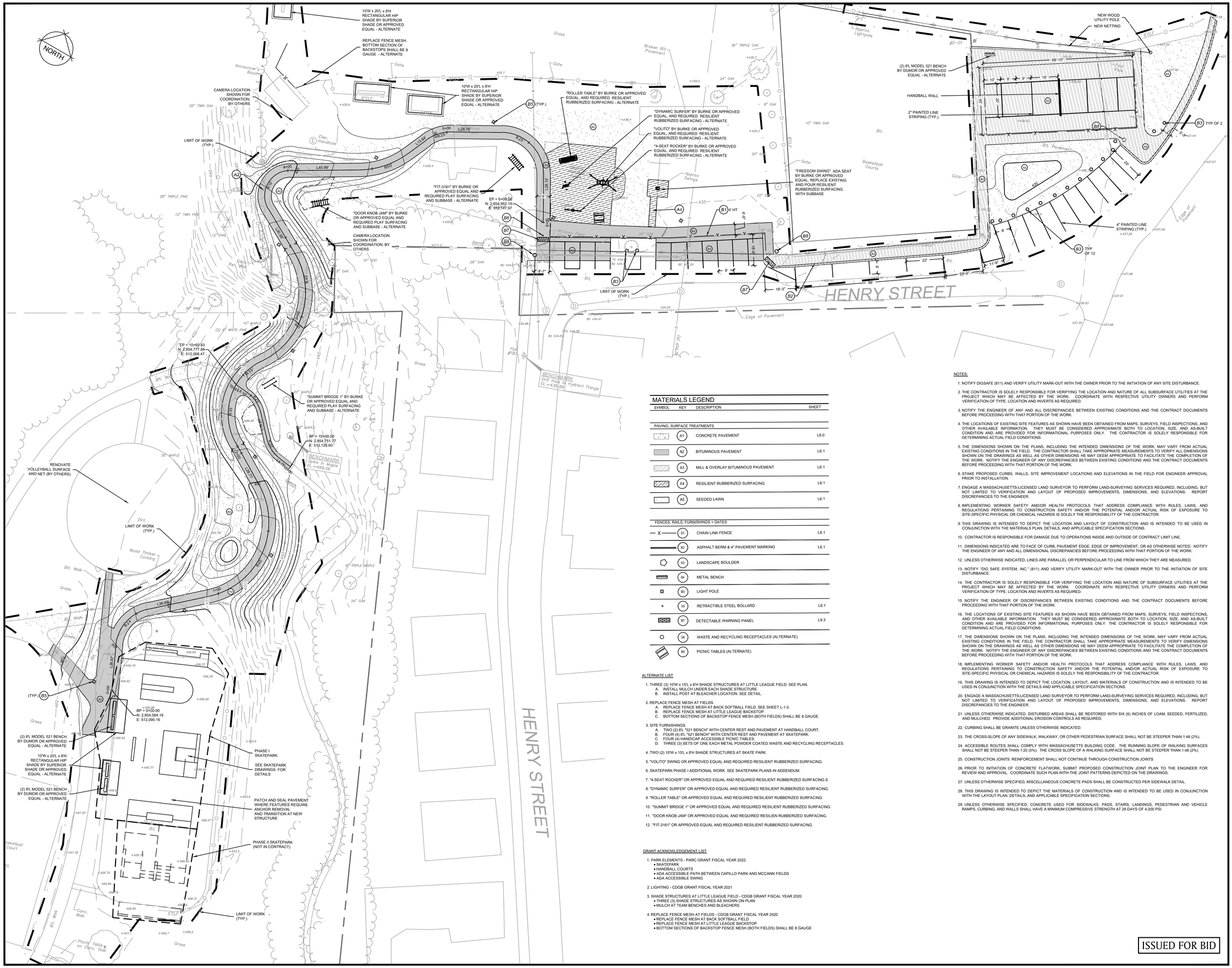

MATERIALS LEGEND

SYMBOL	KEY	DESCRIPTION	SHEET
PAVING, SURFACE TREATMENTS			
	A1	CONCRETE PAVEMENT	L6.0
	A2	BITUMINOUS PAVEMENT	L6.1
	A3	MILL & OVERLAY BITUMINOUS PAVEMENT	L6.1
	A4	RESILIENT RUBBERIZED SURFACING	L6.1
	A5	SEEDED LAWN	L6.1
FENCES, RAILS, FURNISHINGS + GATES			
X	01	CHAIN LINK FENCE	L6.1
	B2	ASPHALT BERM & 4" PAVEMENT MARKING	L6.1
	B3	LANDSCAPE BOULDER	
	B4	METAL BENCH	
	B5	LIGHT POLE	
	B6	RETRACTIBLE STEEL BOLLARD	L6.1
	B7	DETECTABLE WARNING PANEL	L9.3
	B8	WASTE AND RECYCLING RECEPTACLES (ALTERNATE)	
	B9	PICNIC TABLES (ALTERNATE)	

ALTERNATE LIST

1. THREE (3) 10'W x 15'L x 8'H SHADE STRUCTURES AT LITTLE LEAGUE FIELD. SEE PLAN.
   A. INSTALL MULCH UNDER EACH SHADE STRUCTURE.
   B. INSTALL POST AT BLEACHER LOCATION. SEE DETAIL.
2. REPLACE FENCE MESH AT FIELDS.
   A. REPLACE FENCE MESH AT BACK SOFTBALL FIELD. SEE SHEET L-1.0.
   B. REPLACE FENCE MESH AT LITTLE LEAGUE BACKSTOP.
   C. BOTTOM SECTIONS OF BACKSTOP FENCE MESH (BOTH FIELDS) SHALL BE 8 GAUGE
3. SITE FURNISHINGS
   A. TWO (2) 8'L "521 BENCH" WITH CENTER REST AND PAVEMENT AT HANDBALL COURT.
   B. FOUR (4) 8'L "521 BENCH" WITH CENTER REST AND PAVEMENT AT SKATEPARK.
   C. FOUR (4) HANDICAP ACCESSIBLE PICNIC TABLES.
   D. THREE (3) SETS OF ONE EACH METAL POWDER COATED WASTE AND RECYCLING RECEPTACLES.
4. TWO (2) 10'W x 15'L x 8'H SHADE STRUCTURES AT SKATE PARK.
5. "VOLITO" SWING OR APPROVED EQUAL AND REQUIRED RESILIENT RUBBERIZED SURFACING.
6. SKATEPARK PHASE I ADDITIONAL WORK. SEE SKATEPARK PLANS IN ADDENDUM.
7. "4-SEAT ROCKER" OR APPROVED EQUAL AND REQUIRED RESILIENT RUBBERIZED SURFACING.S
8. "DYNAMIC SURFER" OR APPROVED EQUAL AND REQUIRED RESILIENT RUBBERIZED SURFACING.
9. "ROLLER TABLE" OR APPROVED EQUAL AND REQUIRED RESILIENT RUBBERIZED SURFACING.
10. "SUMMIT BRIDGE 1" OR APPROVED EQUAL AND REQUIRED RESILIENT RUBBERIZED SURFACING.
11. "DOOR KNOB JAM" OR APPROVED EQUAL AND REQUIRED RESILIEN RUBBERIZED SURFACING.
12. "FIT-3161" OR APPROVED EQUAL AND REQUIRED RESILIENT RUBBERIZED SURFACING.

GRANT ACKNOWLEDGEMENT LIST

1. PARK ELEMENTS - PARC GRANT FISCAL YEAR 2022
   - SKATEPARK
   - HANDBALL COURTS
   - ADA ACCESSIBLE PATH BETWEEN CAPILLO PARK AND MCCANN FIELDS
   - ADA ACCESSIBLE SWING
2. LIGHTING - CDGB GRANT FISCAL YEAR 2021
3. SHADE STRUCTURES AT LITTLE LEAGUE FIELD - CDGB GRANT FISCAL YEAR 2020
   - THREE (3) SHADE STRUCTURES AS SHOWN ON PLAN
   - MULCH AT TEAM BENCHES AND BLEACHERS
4. REPLACE FENCE MESH AT FIELDS - CDGB GRANT FISCAL YEAR 2020
   - REPLACE FENCE MESH AT BACK SOFTBALL FIELD
   - REPLACE FENCE MESH AT LITTLE LEAGUE BACKSTOP
   - BOTTOM SECTIONS OF BACKSTOP FENCE MESH (BOTH FIELDS) SHALL BE 8 GAUGE

NOTES:

1. NOTIFY DIGSAFE (811) AND VERIFY UTILITY MARK-OUT WITH THE OWNER PRIOR TO THE INITIATION OF ANY SITE DISTURBANCE.
2. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING THE LOCATION AND NATURE OF ALL SUBSURFACE UTILITIES AT THE PROJECT WHICH MAY BE AFFECTED BY THE WORK. COORDINATE WITH RESPECTIVE UTILITY OWNERS AND PERFORM VERIFICATION OF TYPE, LOCATION AND INVERTS AS REQUIRED.
3. NOTIFY THE ENGINEER OF ANY AND ALL DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH THAT PORTION OF THE WORK.
4. THE LOCATIONS OF EXISTING SITE FEATURES AS SHOWN HAVE BEEN OBTAINED FROM MAPS, SURVEYS, FIELD INSPECTIONS, AND OTHER AVAILABLE INFORMATION. THEY MUST BE CONSIDERED APPROXIMATE BOTH TO LOCATION, SIZE, AND AS-BUILT CONDITION AND ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL FIELD CONDITIONS.
5. THE DIMENSIONS SHOWN ON THE PLANS, INCLUDING THE INTENDED DIMENSIONS OF THE WORK, MAY VARY FROM ACTUAL EXISTING CONDITIONS IN THE FIELD. THE CONTRACTOR SHALL TAKE APPROPRIATE MEASUREMENTS TO VERIFY ALL DIMENSIONS SHOWN ON THE DRAWINGS AS WELL AS OTHER DIMENSIONS HE MAY DEEM APPROPRIATE TO FACILITATE THE COMPLETION OF THE WORK. NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH THAT PORTION OF THE WORK.
6. STAKE PROPOSED CURBS, WALLS, SITE IMPROVEMENT LOCATIONS AND ELEVATIONS IN THE FIELD FOR ENGINEER APPROVAL PRIOR TO INSTALLATION.
7. ENGAGE A MASSACHUSETTS-LICENSED LAND SURVEYOR TO PERFORM LAND-SURVEYING SERVICES REQUIRED, INCLUDING, BUT NOT LIMITED TO VERIFICATION AND LAYOUT OF PROPOSED IMPROVEMENTS, DIMENSIONS, AND ELEVATIONS. REPORT DISCREPANCIES TO THE ENGINEER.
8. IMPLEMENTING WORKER SAFETY AND/OR HEALTH PROTOCOLS THAT ADDRESS COMPLIANCE WITH RULES, LAWS, AND REGULATIONS PERTAINING TO CONSTRUCTION SAFETY AND/OR THE POTENTIAL AND/OR ACTUAL RISK OF EXPOSURE TO SITE-SPECIFIC PHYSICAL OR CHEMICAL HAZARDS IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
9. THIS DRAWING IS INTENDED TO DEPICT THE LOCATION AND LAYOUT OF CONSTRUCTION AND IS INTENDED TO BE USED IN CONJUNCTION WITH THE MATERIALS PLAN, DETAILS, AND APPLICABLE SPECIFICATION SECTIONS.
10. CONTRACTOR IS RESPONSIBLE FOR DAMAGE DUE TO OPERATIONS INSIDE AND OUTSIDE OF CONTRACT LIMIT LINE.
11. DIMENSIONS INDICATED ARE TO FACE OF CURB, PAVEMENT EDGE, EDGE OF IMPROVEMENT, OR AS OTHERWISE NOTED. NOTIFY THE ENGINEER OF ANY AND ALL DIMENSIONAL DISCREPANCIES BEFORE PROCEEDING WITH THAT PORTION OF THE WORK.
12. UNLESS OTHERWISE INDICATED, LINES ARE PARALLEL OR PERPENDICULAR TO LINE FROM WHICH THEY ARE MEASURED.
13. NOTIFY "DIG SAFE SYSTEM, INC." (811) AND VERIFY UTILITY MARK-OUT WITH THE OWNER PRIOR TO THE INITIATION OF SITE DISTURBANCE.
14. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR VERIFYING THE LOCATION AND NATURE OF SUBSURFACE UTILITIES AT THE PROJECT WHICH MAY BE AFFECTED BY THE WORK. COORDINATE WITH RESPECTIVE UTILITY OWNERS AND PERFORM VERIFICATION OF TYPE, LOCATION AND INVERTS AS REQUIRED.
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19. THIS DRAWING IS INTENDED TO DEPICT THE LOCATION, LAYOUT, AND MATERIALS OF CONSTRUCTION AND IS INTENDED TO BE USED IN CONJUNCTION WITH THE DETAILS AND APPLICABLE SPECIFICATION SECTIONS.
20. ENGAGE A MASSACHUSETTS-LICENSED LAND SURVEYOR TO PERFORM LAND-SURVEYING SERVICES REQUIRED, INCLUDING, BUT NOT LIMITED TO VERIFICATION AND LAYOUT OF PROPOSED IMPROVEMENTS, DIMENSIONS, AND ELEVATIONS. REPORT DISCREPANCIES TO THE ENGINEER.
21. UNLESS OTHERWISE INDICATED, DISTURBED AREAS SHALL BE RESTORED WITH SIX (6) INCHES OF LOAM, SEEDED, FERTILIZED, AND MULCHED. PROVIDE ADDITIONAL EROSION CONTROLS AS REQUIRED.
22. CURBING SHALL BE GRANITE UNLESS OTHERWISE INDICATED.
23. THE CROSS-SLOPE OF ANY SIDEWALK, WALKWAY, OR OTHER PEDESTRIAN SURFACE SHALL NOT BE STEEPER THAN 1:48 (2%).
24. ACCESSIBLE ROUTES SHALL COMPLY WITH MASSACHUSETTS BUILDING CODE. THE RUNNING SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:20 (5%). THE CROSS SLOPE OF A WALKING SURFACE SHALL NOT BE STEEPER THAN 1:48 (2%).
25. CONSTRUCTION JOINTS: REINFORCEMENT SHALL NOT CONTINUE THROUGH CONSTRUCTION JOINTS.
26. PRIOR TO INITIATION OF CONCRETE FLATWORK, SUBMIT PROPOSED CONSTRUCTION JOINT PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL. COORDINATE SUCH PLAN WITH THE JOINT PATTERNS DEPICTED ON THE DRAWINGS.
27. UNLESS OTHERWISE SPECIFIED, MISCELLANEOUS CONCRETE PADS SHALL BE CONSTRUCTED PER SIDEWALK DETAIL.
28. THIS DRAWING IS INTENDED TO DEPICT THE MATERIALS OF CONSTRUCTION AND IS INTENDED TO BE USED IN CONJUNCTION WITH THE LAYOUT PLAN, DETAILS, AND APPLICABLE SPECIFICATION SECTIONS.
29. UNLESS OTHERWISE SPECIFIED, CONCRETE USED FOR SIDEWALKS, PADS, STAIRS, LANDINGS, PEDESTRIAN AND VEHICLE RAMPS, CURBING, AND WALLS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 4,000 PSI.

ISSUED FOR BID

CAPILLO PARK AND MCCANN FIELDS UPGRADES - JUNE 22, 2022

PROFESSIONAL ENGINEER — No. 29098

CAPILLO PARK AND MCCANN FIELDS UPGRADES

1-45 HENRY STREET

IN

SOUTHBRIDGE MASSACHUSETTS

LAYOUT AND MATERIALS PLAN

JUNE 22, 2022

REVISIONS:

PREPARED FOR:
TOWN OF SOUTHBRIDGE
41 ELM STREET
SOUTHBRIDGE, MA 01550

BSC GROUP
655 Winding Brook Drive
Glastonbury, Connecticut 06033
860 652 8227

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DWG. NO:
JOB. NO: 61165.00

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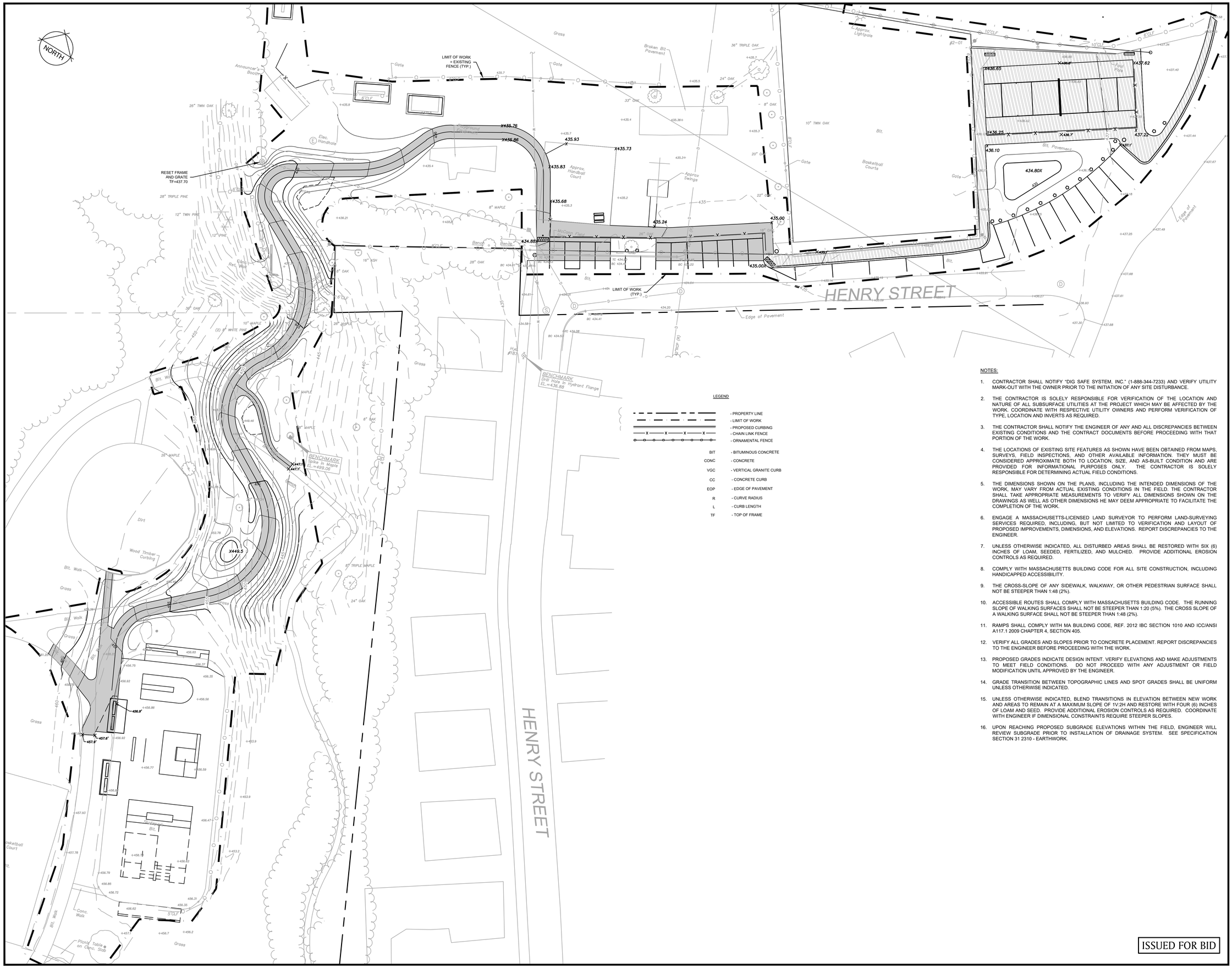

LEGEND

	- PROPERTY LINE
	- LIMIT OF WORK
	- PROPOSED CURBING
X X X X	- CHAIN LINK FENCE
	- ORNAMENTAL FENCE
BIT	- BITUMINOUS CONCRETE
CONC	- CONCRETE
VGC	- VERTICAL GRANITE CURB
CC	- CONCRETE CURB
EOP	- EDGE OF PAVEMENT
R	- CURVE RADIUS
L	- CURB LENGTH
TF	- TOP OF FRAME

NOTES:

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6. ENGAGE A MASSACHUSETTS-LICENSED LAND SURVEYOR TO PERFORM LAND-SURVEYING SERVICES REQUIRED, INCLUDING, BUT NOT LIMITED TO VERIFICATION AND LAYOUT OF PROPOSED IMPROVEMENTS, DIMENSIONS, AND ELEVATIONS. REPORT DISCREPANCIES TO THE ENGINEER.
7. UNLESS OTHERWISE INDICATED, ALL DISTURBED AREAS SHALL BE RESTORED WITH SIX (6) INCHES OF LOAM, SEEDED, FERTILIZED, AND MULCHED. PROVIDE ADDITIONAL EROSION CONTROLS AS REQUIRED.
8. COMPLY WITH MASSACHUSETTS BUILDING CODE FOR ALL SITE CONSTRUCTION, INCLUDING HANDICAPPED ACCESSIBILITY.
9. THE CROSS-SLOPE OF ANY SIDEWALK, WALKWAY, OR OTHER PEDESTRIAN SURFACE SHALL NOT BE STEEPER THAN 1:48 (2%).
10. ACCESSIBLE ROUTES SHALL COMPLY WITH MASSACHUSETTS BUILDING CODE. THE RUNNING SLOPE OF WALKING SURFACES SHALL NOT BE STEEPER THAN 1:20 (5%). THE CROSS SLOPE OF A WALKING SURFACE SHALL NOT BE STEEPER THAN 1:48 (2%).
11. RAMPS SHALL COMPLY WITH MA BUILDING CODE, REF. 2012 IBC SECTION 1010 AND ICC/ANSI A117.1 2009 CHAPTER 4, SECTION 405.
12. VERIFY ALL GRADES AND SLOPES PRIOR TO CONCRETE PLACEMENT. REPORT DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
13. PROPOSED GRADES INDICATE DESIGN INTENT. VERIFY ELEVATIONS AND MAKE ADJUSTMENTS TO MEET FIELD CONDITIONS. DO NOT PROCEED WITH ANY ADJUSTMENT OR FIELD MODIFICATION UNTIL APPROVED BY THE ENGINEER.
14. GRADE TRANSITION BETWEEN TOPOGRAPHIC LINES AND SPOT GRADES SHALL BE UNIFORM UNLESS OTHERWISE INDICATED.
15. UNLESS OTHERWISE INDICATED, BLEND TRANSITIONS IN ELEVATION BETWEEN NEW WORK AND AREAS TO REMAIN AT A MAXIMUM SLOPE OF 1V:2H AND RESTORE WITH FOUR (6) INCHES OF LOAM AND SEED. PROVIDE ADDITIONAL EROSION CONTROLS AS REQUIRED. COORDINATE WITH ENGINEER IF DIMENSIONAL CONSTRAINTS REQUIRE STEEPER SLOPES.
16. UPON REACHING PROPOSED SUBGRADE ELEVATIONS WITHIN THE FIELD, ENGINEER WILL REVIEW SUBGRADE PRIOR TO INSTALLATION OF DRAINAGE SYSTEM. SEE SPECIFICATION SECTION 31 2310 - EARTHWORK.

ISSUED FOR BID

CAPILLO PARK AND MCCANN FIELDS UPGRADES - JUNE 22, 2022

REGISTERED PROFESSIONAL ENGINEER No. 29098

CAPILLO PARK AND MCCANN FIELDS UPGRADES

1-45 HENRY STREET

IN

SOUTHBRIDGE MASSACHUSETTS

GRADING AND DRAINAGE PLAN

JUNE 22, 2022

REVISIONS:

PREPARED FOR:
TOWN OF SOUTHBRIDGE
41 ELM STREET
SOUTHBRIDGE, MA 01550

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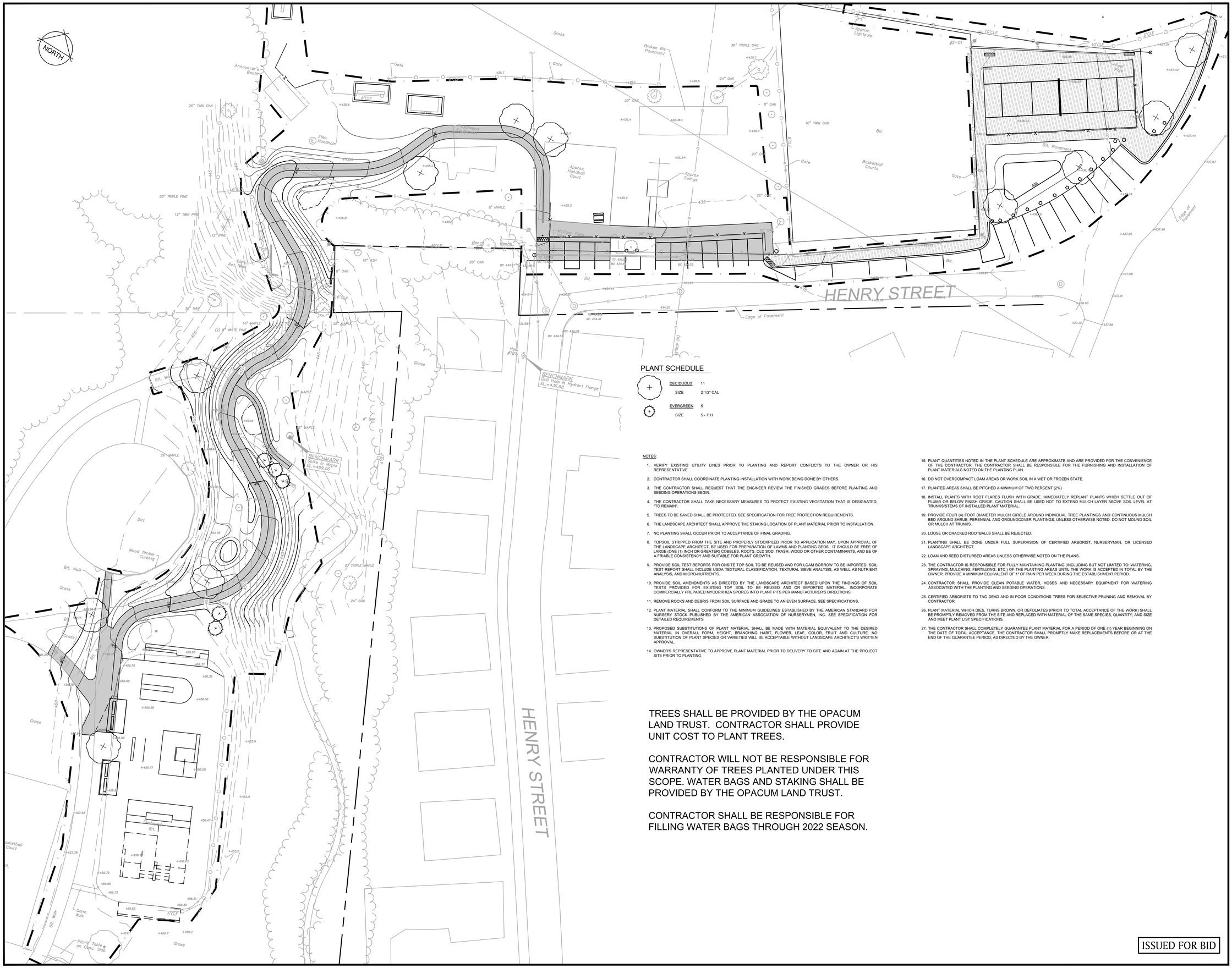

PLANT SCHEDULE

DECIDUOUS	11	
SIZE	2 1/2" CAL	
EVERGREEN	5	
SIZE	5 - 7' H	

NOTES:

1. VERIFY EXISTING UTILITY LINES PRIOR TO PLANTING AND REPORT CONFLICTS TO THE OWNER OR HIS REPRESENTATIVE.
2. CONTRACTOR SHALL COORDINATE PLANTING INSTALLATION WITH WORK BEING DONE BY OTHERS.
3. THE CONTRACTOR SHALL REQUEST THAT THE ENGINEER REVIEW THE FINISHED GRADES BEFORE PLANTING AND SEEDING OPERATIONS BEGIN.
4. THE CONTRACTOR SHALL TAKE NECESSARY MEASURES TO PROTECT EXISTING VEGETATION THAT IS DESIGNATED, "TO REMAIN".
5. TREES TO BE SAVED SHALL BE PROTECTED. SEE SPECIFICATION FOR TREE PROTECTION REQUIREMENTS.
6. THE LANDSCAPE ARCHITECT SHALL APPROVE THE STAKING LOCATION OF PLANT MATERIAL PRIOR TO INSTALLATION.
7. NO PLANTING SHALL OCCUR PRIOR TO ACCEPTANCE OF FINAL GRADING.
8. TOPSOIL STRIPPED FROM THE SITE AND PROPERLY STOCKPILED PRIOR TO APPLICATION MAY, UPON APPROVAL OF THE LANDSCAPE ARCHITECT, BE USED FOR PREPARATION OF LAWNS AND PLANTING BEDS. IT SHOULD BE FREE OF LARGE (ONE (1) INCH OR GREATER) COBBLES, ROOTS, OLD SOD, TRASH, WOOD OR OTHER CONTAMINANTS, AND BE OF A FRIABLE CONSISTENCY AND SUITABLE FOR PLANT GROWTH.
9. PROVIDE SOIL TEST REPORTS FOR ONSITE TOP SOIL TO BE REUSED AND FOR LOAM BORROW TO BE IMPORTED. SOIL TEST REPORT SHALL INCLUDE USDA TEXTURAL CLASSIFICATION, TEXTURAL SIEVE ANALYSIS, AS WELL AS NUTRIENT ANALYSIS, AND MICRO-NUTRIENTS.
10. PROVIDE SOIL AMENDMENTS AS DIRECTED BY THE LANDSCAPE ARCHITECT BASED UPON THE FINDINGS OF SOIL TESTS PROVIDED FOR EXISTING TOP SOIL TO BE REUSED AND OR IMPORTED MATERIAL. INCORPORATE COMMERCIALLY PREPARED MYCORRHIZA SPORES INTO PLANT PITS PER MANUFACTURER'S DIRECTIONS.
11. REMOVE ROCKS AND DEBRIS FROM SOIL SURFACE AND GRADE TO AN EVEN SURFACE. SEE SPECIFICATIONS.
12. PLANT MATERIAL SHALL CONFORM TO THE MINIMUM GUIDELINES ESTABLISHED BY THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC. SEE SPECIFICATION FOR DETAILED REQUIREMENTS.
13. PROPOSED SUBSTITUTIONS OF PLANT MATERIAL SHALL BE MADE WITH MATERIAL EQUIVALENT TO THE DESIRED MATERIAL IN OVERALL FORM, HEIGHT, BRANCHING HABIT, FLOWER, LEAF, COLOR, FRUIT AND CULTURE. NO SUBSTITUTION OF PLANT SPECIES OR VARIETIES WILL BE ACCEPTABLE WITHOUT LANDSCAPE ARCHITECT'S WRITTEN APPROVAL.
14. OWNER'S REPRESENTATIVE TO APPROVE PLANT MATERIAL PRIOR TO DELIVERY TO SITE AND AGAIN AT THE PROJECT SITE PRIOR TO PLANTING.
15. PLANT QUANTITIES NOTED IN THE PLANT SCHEDULE ARE APPROXIMATE AND ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FURNISHING AND INSTALLATION OF PLANT MATERIALS NOTED ON THE PLANTING PLAN.
16. DO NOT OVERCOMPACT LOAM AREAS OR WORK SOIL IN A WET OR FROZEN STATE.
17. PLANTED AREAS SHALL BE PITCHED A MINIMUM OF TWO PERCENT (2%)
18. INSTALL PLANTS WITH ROOT FLARES FLUSH WITH GRADE. IMMEDIATELY REPLANT PLANTS WHICH SETTLE OUT OF PLUMB OR BELOW FINISH GRADE. CAUTION SHALL BE USED NOT TO EXTEND MULCH LAYER ABOVE SOIL LEVEL AT TRUNKS/STEMS OF INSTALLED PLANT MATERIAL.
19. PROVIDE FOUR (4) FOOT DIAMETER MULCH CIRCLE AROUND INDIVIDUAL TREE PLANTINGS AND CONTINUOUS MULCH BED AROUND SHRUB, PERENNIAL AND GROUNDCOVER PLANTINGS, UNLESS OTHERWISE NOTED. DO NOT MOUND SOIL OR MULCH AT TRUNKS.
20. LOOSE OR CRACKED ROOTBALLS SHALL BE REJECTED.
21. PLANTING SHALL BE DONE UNDER FULL SUPERVISION OF CERTIFIED ARBORIST, NURSERYMAN, OR LICENSED LANDSCAPE ARCHITECT.
22. LOAM AND SEED DISTURBED AREAS UNLESS OTHERWISE NOTED ON THE PLANS.
23. THE CONTRACTOR IS RESPONSIBLE FOR FULLY MAINTAINING PLANTING (INCLUDING BUT NOT LIMITED TO: WATERING, SPRAYING, MULCHING, FERTILIZING, ETC.) OF THE PLANTING AREAS UNTIL THE WORK IS ACCEPTED IN TOTAL BY THE OWNER. PROVIDE A MINIMUM EQUIVALENT OF 1" OF RAIN PER WEEK DURING THE ESTABLISHMENT PERIOD.
24. CONTRACTOR SHALL PROVIDE CLEAN POTABLE WATER, HOSES AND NECESSARY EQUIPMENT FOR WATERING ASSOCIATED WITH THE PLANTING AND SEEDING OPERATIONS.
25. CERTIFIED ARBORISTS TO TAG DEAD AND IN POOR CONDITIONS TREES FOR SELECTIVE PRUNING AND REMOVAL BY CONTRACTOR.
26. PLANT MATERIAL WHICH DIES, TURNS BROWN, OR DEFOLIATES (PRIOR TO TOTAL ACCEPTANCE OF THE WORK) SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, QUANTITY, AND SIZE AND MEET PLANT LIST SPECIFICATIONS.
27. THE CONTRACTOR SHALL COMPLETELY GUARANTEE PLANT MATERIAL FOR A PERIOD OF ONE (1) YEAR BEGINNING ON THE DATE OF TOTAL ACCEPTANCE. THE CONTRACTOR SHALL PROMPTLY MAKE REPLACEMENTS BEFORE OR AT THE END OF THE GUARANTEE PERIOD, AS DIRECTED BY THE OWNER.

TREES SHALL BE PROVIDED BY THE OPACUM LAND TRUST. CONTRACTOR SHALL PROVIDE UNIT COST TO PLANT TREES.

CONTRACTOR WILL NOT BE RESPONSIBLE FOR WARRANTY OF TREES PLANTED UNDER THIS SCOPE. WATER BAGS AND STAKING SHALL BE PROVIDED BY THE OPACUM LAND TRUST.

CONTRACTOR SHALL BE RESPONSIBLE FOR FILLING WATER BAGS THROUGH 2022 SEASON.

ISSUED FOR BID

CAPILLO PARK AND MCCANN FIELDS UPGRADES - JUNE 22, 2022

[redacted] No. 29098

CAPILLO PARK AND MCCANN FIELDS UPGRADES

1-45 HENRY STREET

IN

SOUTHBRIDGE MASSACHUSETTS

PLANTING PLAN

JUNE 22, 2022

REVISIONS:

PREPARED FOR:
TOWN OF SOUTHBRIDGE
41 ELM STREET
SOUTHBRIDGE, MA 01550

BSC GROUP
655 Winding Brook Drive
Glastonbury, Connecticut 06033
860 652 8227

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SCALE: 1" = 20'

0 10 20 40 FEET

FILE: 61165.00-LDS.DWG

DWG. NO:

JOB. NO: 61165.00

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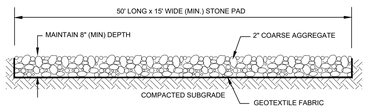
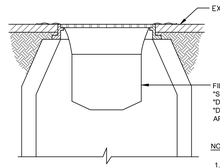


1 TEMPORARY CONSTRUCTION ENTRANCE

SCALE: NONE

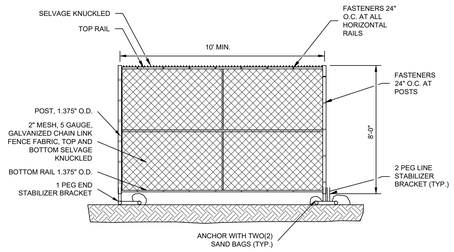


NOTE: (FOR USE WITH EXISTING CATCH BASINS)

1. FILTER BASKETS TO BE PLACED IN ALL CATCH BASINS IN THE VICINITY OF NEW CONSTRUCTION. CATCH BASINS ARE TO BE PROTECTED AS SHOWN, WITH MINIMUM WEEKLY MAINTENANCE, OR AS REQUIRED AND REPLACED IF NECESSARY.

2 CATCH BASIN INLET PROTECTION

SCALE: NONE

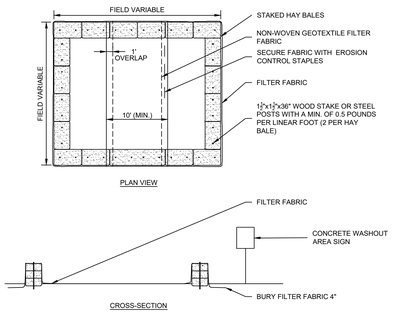


NOTES:

1. EACH STABILIZER BRACKET SHALL BE SECURED WITH TWO (2) SANDBAGS, MIN. 50 POUNDS EACH.
2. PANELIZED CONSTRUCTION FENCE SHALL ONLY BE USED AT CONSTRUCTION SITE ENTRANCE AREAS, AREAS REQUIRING FREQUENT RELOCATION OF FENCING, OR WHERE PAVED AREAS PROHIBIT INSTALLATION OF DRIVEN FENCE POSTS.

3 PANELIZED CONSTRUCTION FENCE

SCALE: NONE

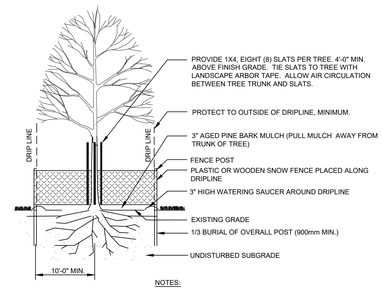


NOTES:

1. CONSTRUCT WASHOUT AREA LARGE ENOUGH TO ENSURE MATERIALS WILL BE CONTAINED WHERE WASTE CONCRETE CAN SOLIDIFY IN PLACE AND EXCESS WATER CAN SAFELY EVAPORATE.
2. WASHOUT AREA SHALL BE LARGE ENOUGH TO RETAIN ALL LIQUID AND WASTE CONCRETE MATERIALS FROM WASHOUT OPERATION.
3. WEEKLY INSPECTIONS OF WASHOUT AREAS SHALL BE CONDUCTED TO ASSESS THE HOLDING CAPACITY AND FUNCTIONALITY OF THE WASHOUT AREA.

4 TEMPORARY CONCRETE WASHOUT AREA

SCALE: NONE

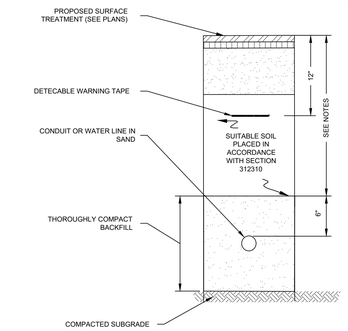


NOTES:

1. COORDINATE LOCATION OF FENCE WITH PROJECT ENGINEER.
2. IF EXCAVATION OCCURS WITHIN DRIPLINE, EXISTING ROOTS SHALL BE CLEANLY CUT PRIOR TO EXCAVATION BY A CERTIFIED ARBORIST AND TREES SHALL BE WATERED.

5 TREE PROTECTION

SCALE: NONE

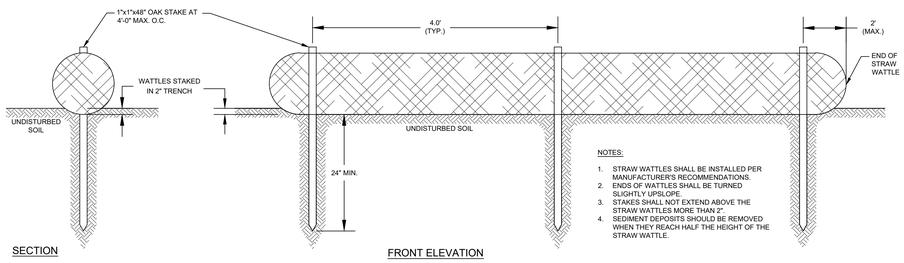


NOTES:

1. PULL LINE IN ALL ELECTRICAL CONDUIT: 3/8-INCH DOUBLE-BRAIDED, LOW STRETCH, POLYESTER COMPOSITE ROPE.
2. MINIMUM DEPTH OF ELECTRICAL CONDUIT: 24 INCHES. MINIMUM DEPTH OF WATER LINE: 42 INCHES.

6 CONDUIT TRENCH

SCALE: NONE

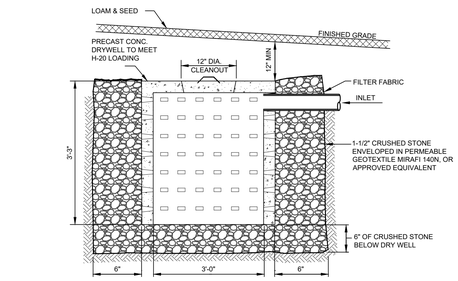


NOTES:

1. STRAW WATTLES SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
2. ENDS OF WATTLES SHALL BE TURNED SLIGHTLY UPSLOPE.
3. STAKES SHALL NOT EXTEND ABOVE THE STRAW WATTLES MORE THAN 2".
4. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN THEY REACH HALF THE HEIGHT OF THE STRAW WATTLE.

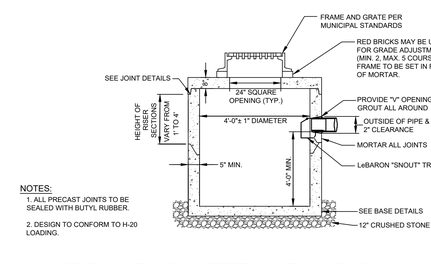
7 STRAW WATTLE (OR APPROVED EQUAL)

SCALE: NONE



8 DRY WELL (SMALL WITH BURIED ACCESS)

SCALE: NONE

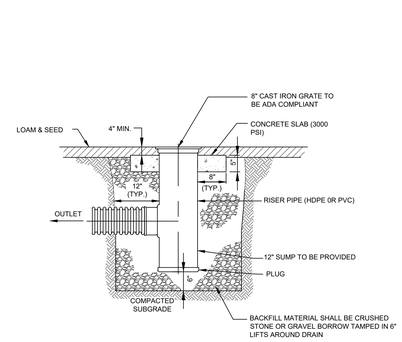


NOTES:

1. ALL PRECAST JOINTS TO BE SEALED WITH BUTYL RUBBER.
2. DESIGN TO CONFORM TO H-20 LOADING.

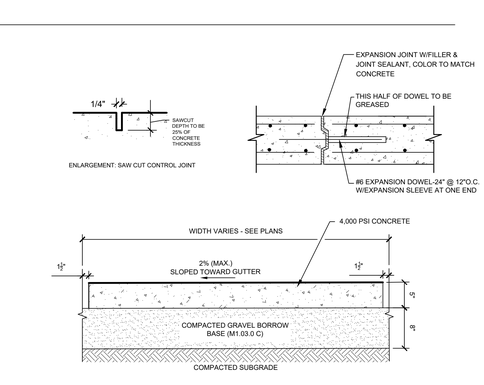
9 PRECAST CONCRETE CATCH BASIN

SCALE: NONE



10 AREA DRAIN

SCALE: NONE

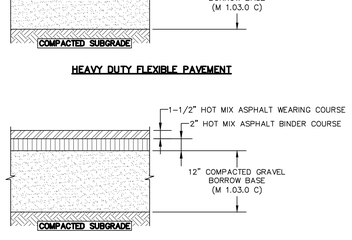


NOTES:

1. TOOLED CONTROL JOINTS SHALL BE 1/4 SLAB THICKNESS. TOOL JOINTS EARLY IN THE FINISHING PROCESS AND RE-RUN TO ENSURE GROOVE BOND HAS NOT OCCURRED.
2. FULL-DEPTH JOINTS SHALL INCORPORATE FULL-DEPTH JOINT FILLER PER SPECIFICATIONS AND DETAILS.
3. SIDEWALK SHALL HAVE LIGHT BROOM FINISH PERPENDICULAR TO THE DIRECTION OF TRAVEL.

11 CONCRETE PAVEMENT

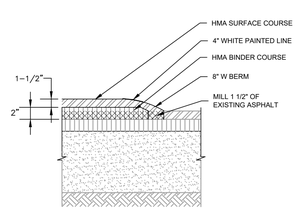
SCALE: NONE



NOTE:
PAVEMENT SECTIONS ARE SUBJECT TO CHANGE AND WILL BE BASED ON THE RESULTS OF GEOTECHNICAL INVESTIGATIONS

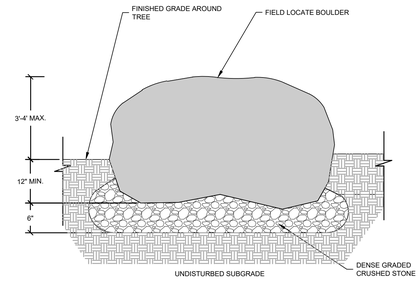
12 HOT MIX ASPHALT PAVEMENT SECTIONS

SCALE: NONE



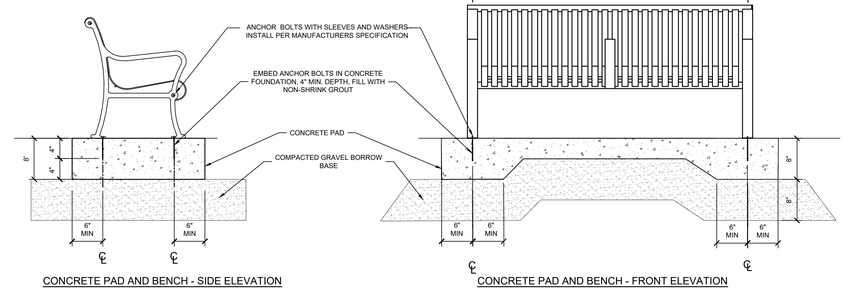
NOTES:

1. INSTALL BOULDERS WITH WEATHERED FACE EXPOSED AND A MINIMUM OF 1/3 OF THE STONE BELOW FINISHED GRADE.
2. BOULDERS SHALL BE NATURAL STONE WITH A WEATHERED, ROUNDED SURFACE, MIN 2'x2' TO MAX. 4'x5'.



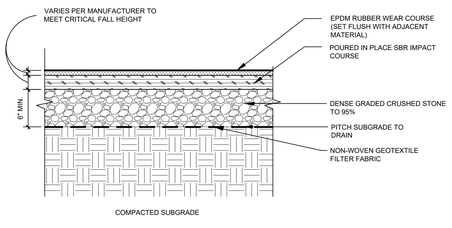
13 LANDSCAPE BOULDER

SCALE: NONE



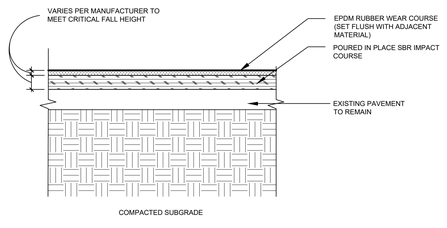
14 METAL PARK BENCH - 6' LENGTH - WITH CENTER ARMREST

SCALE: NONE



4 RESILIENT RUBBERIZED SURFACING

SCALE: NONE



4 RESILIENT RUBBERIZED SURFACING OVER EXISTING PAVEMENT

SCALE: NONE

ISSUED FOR BID

CAPILLO PARK AND MCCANN FIELDS UPGRADES - JUNE 22, 2022

REGISTERED PROFESSIONAL ENGINEER No. 29098

CAPILLO PARK AND MCCANN FIELDS UPGRADES

1-45 HENRY STREET

IN

SOUTHBRIDGE MASSACHUSETTS

DETAILS

JUNE 22, 2022

REVISIONS:

PREPARED FOR:
TOWN OF SOUTHBRIDGE
41 ELM STREET
SOUTHBRIDGE, MA 01550

BSC GROUP
655 Winding Brook Drive
Glastonbury, Connecticut 06033
860 652 8227

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SCALE: 1:1
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FILE: 61165.00-DET.DWG
DWG. NO:
JOB. NO: 61165.00

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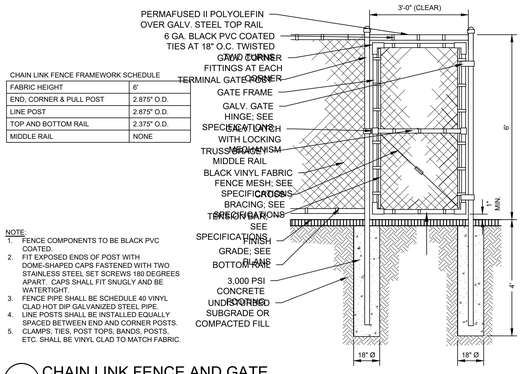
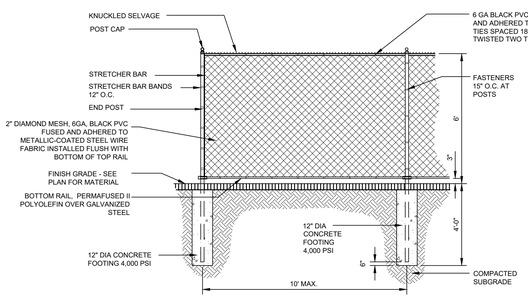
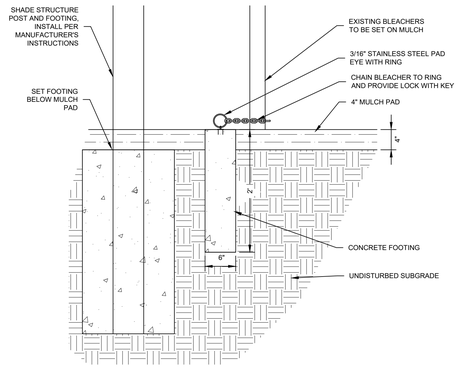


CHAIN LINK FENCE FRAMEWORK SCHEDULE	
FABRIC HEIGHT	6'
END, CORNER & PULL POST	2.875" O.D.
LINE POST	2.875" O.D.
TOP AND BOTTOM RAIL	2.375" O.D.
MIDDLE RAIL	NONE

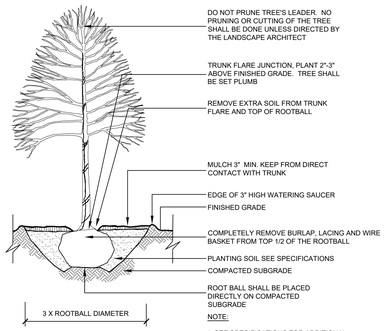
NOTE:
1. FENCE COMPONENTS TO BE BLACK PVC COATED.
2. FIT EXPOSED ENDS OF POST WITH DOME-SHAPED CAPS FASTENED WITH TWO STAINLESS STEEL SET SCREWS 180 DEGREES APART. CAPS SHALL FIT SNUGLY AND BE WATERTIGHT.
3. FENCE PIPE SHALL BE SCHEDULE 40 VINYL CLAD HOT DIP GALVANIZED STEEL PIPE.
4. LINE POSTS SHALL BE INSTALLED EQUALLY SPACED BETWEEN END AND CORNER POSTS.
5. CLAMPS, TIES, POST TOPS, BANDS, POSTS, ETC. SHALL BE VINYL CLAD TO MATCH FABRIC.





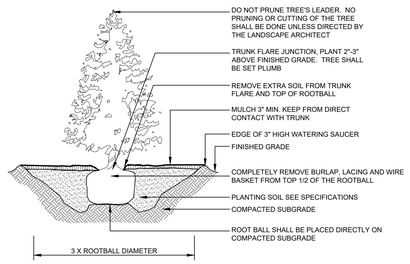
1 CHAIN LINK FENCE AND GATE
SCALE: NONE

2 POST AT LITTLE LEAGUE BLEACHER
SCALE: NONE



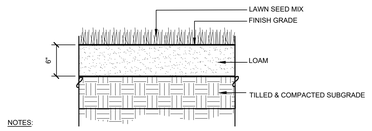
NOTE:
1. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2. SAUCER SHALL BE FLOODED TWICE DURING THE FIRST 24 HOURS AFTER PLANTING.

3 TREE PLANTING
SCALE: NONE



NOTES:
1. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2. SAUCER SHALL BE FLOODED TWICE DURING THE FIRST 24 HOURS AFTER PLANTING.

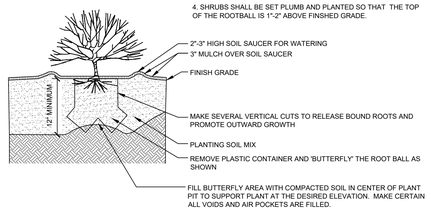
4 EVERGREEN TREE PLANTING
SCALE: NONE



NOTES:
1. SEE SPECIFICATION FOR SEED MIX APPLICATION AND PLANTING MEDIUM PREPARATION.
2. WHERE HYDRO-SEEDING IS NOT EMPLOYED, LOAMED AREAS SHALL BE RAKED TO LOOSEN SOILS, SEED AND STARTER FERTILIZER SHALL BE SPREAD, AND THE ENTIRE SURFACE SHALL BE ROLLED TO BOND SEED TO SOIL SURFACE.

5 SEEDED LAWN
SCALE: NONE

NOTES:
1. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
2. NO PRUNING OR CUTTING UNLESS DIRECTED BY THE LANDSCAPE ARCHITECT.
3. SAUCER SHALL BE FLOODED TWICE DURING THE FIRST 24 HOURS AFTER PLANTING.
4. SHRUBS SHALL BE SET PLUMB AND PLANTED SO THAT THE TOP OF THE ROOTBALL IS 1"-2" ABOVE FINISHED GRADE.



6 CONTAINER GROWN SHRUB/PERENNIAL
SCALE: NONE

PLAN VIEW

SECTION VIEW

7 HANDBALL WALL
SCALE: NONE

ISSUED FOR BID

CAPILLO PARK AND MCCANN FIELDS UPGRADES - JUNE 22, 2022

~~PAUL J. LE BLANC~~ ~~EXECUTIVE~~ PERLA No. ~~29098~~

CAPILLO PARK AND MCCANN FIELDS UPGRADES

1-45 HENRY STREET

IN

SOUTHBRIDGE
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DETAILS

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REVISIONS:

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TOWN OF SOUTHBRIDGE
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