PROJECT MANUAL

PARKING LOT & SIDEWALK IMPROVEMENTS HALL MEMORIAL LIBRARY DOT GRANT NO. 00470123GR

Prepared For:

ELLINGTON DEPARTMENT OF PUBLIC WORKS

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May 2023

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SECTION 00010

TABLE OF CONTENTS

DIVISION 0 – BIDDING REQUIREMENTS AND CONTRACT FORMS

00001	TITLE PAGE
00010	TABLE OF CONTENTS
00015	LIST OF DRAWINGS
00100	ADVERTISEMENT FOR BIDS
00200	INSTRUCTIONS TO BIDDERS
00410	BID FORM
00430	BID BOND
00510	NOTICE OF AWARD
00520	AGREEMENT FORM
00550	NOTICE TO PROCEED
00610	PERFORMANCE BOND FORM
00615	PAYMENT BOND FORM
00620	APPLICATION FOR PAYMENT
00625	CERTIFICATE OF SUBSTANTIAL COMPLETION FORM
00700	GENERAL CONDITIONS
00800	SUPPLEMENTARY CONDITIONS
00941	CHANGE ORDER FORM
EXHIBIT	1 – Construction Contracts - Required Contract Provisions
	(State Funded Only Contracts)
EXHIBIT	2 – CHRO Contract Compliance Requirements
EXHIBIT	3 – Notice of Contract "Potential Modified Award Schedule"
EXHIBIT	4 – Certificate of Compliance with CGS Section 31-57B

DIVISION 1 – GENERAL REQUIREMENTS

01200	SUMMARY OF WORK
01250	MEASUREMENT & PAYMENT
01300	SUBMITTALS
01500	TEMPORARY FACILITIES
01600	MATERIALS & EQUIPMENT
01550	TRAFFIC CONTROL
01700	SPECIAL PROJECT PROCEDURES
01730	CONTRACT CLOSEOUT

DIVISION 2 – SITE WORK

02070	DEMOLITION
02100	SITE PREPARATION
02200	EARTHWORK
02505	ASPHALT PAVEMENT RECLAMATION
02510	BITUMINOUS CONCRETE PAVEMENT
02514	PORTLAND CEMENT CONCRETE PAVEMENT
02518	CEMENT BASED SKIM COAT
02580	PAVEMENT MARKINGS
02605	DRAINAGE STRUCTURES
02610	BURIED PIPE INSTALLATION
02870	SITE FURNISHINGS
02930	SEEDING
02950	EXTERIOR PLANTS
16525	SITE LIGHTING
	02100 02200 02505 02510 02514 02518 02580 02605 02610 02870 02930 02950

SECTION 00015

LIST OF DRAWINGS

Title	Sheet No.	
Cover Sheet	1 of 10	
Boundary Survey	2 of 10	
Existing Conditions & Demolition Plan	3 of 10	
Layout Plan	4 of 10	
Grading & Utility Plan	5 of 10	
Landscape Plan	6 of 10	
Landscape Details	7 of 10	
Details	8 of 10	
Details	9 of 10	
Details	10 of 10	

ADVERTISEMENT FOR BIDS

Town of Ellington

Sealed proposals addressed to the Finance Officer, for the following contract will be received at the Town Hall Annex, 57 Main Street, Ellington, Connecticut 06029, until 11:00 a.m. on June 20, 2023 at which time they will be opened publicly and read in the meeting room of the Town Hall:

HALL MEMORIAL LIBRARY PARKING LOT & SIDEWALK IMPROVEMENTS

The work to be performed under this contract includes a parking lot expansion and new stenciled sidewalk at the Hall Memorial Library, 93 & 99 Main Street in Ellington. The scope of work includes reclamation and re-pavement of 2,575 square yards of existing bituminous parking lot, installation of approximately 2,700 square yards of new bituminous parking lot and 5,315 square feet of stenciled concrete sidewalk. The project consists of providing all labor, materials, machinery, tools, equipment and other means of construction necessary and incidental to completion of the work shown on the plans and described in the specifications including, but not necessarily limited to the following: tree and shrub removal, reclamation and re-use of existing bituminous pavement, demolition and disposal of existing curbing and concrete sidewalk, installation of storm drain structures and piping, installation of new bituminous parking lot, installation of pole mounted light fixtures, installation of new stenciled concrete sidewalk and curb ramps, installation of a segmental block sitting wall, landscaping and field verifying.

This is a prevailing wage project. This contract is also subject to state set-aside and contract compliance requirements.

No bid may be withdrawn for a period of 61 days after opening of bids without approval and written consent of the Town of Ellington.

Information for Bidders, Bid Forms, specifications and other Bidding Documents will be available electronically on May 22, 2023, and can be requested via an email to publicworks@ellington-ct.gov. The email subject line should include reference to the "Hall Memorial Library Bid Documents".

A mandatory Pre-Bid Meeting will be held with the Director of Public Works at 10:00 a.m., prevailing time, on June 6, 2023 in the conference room at the Public Works Office, 21 Main Street, Ellington, CT. All potential bidders are required to attend in person. No bid will be accepted from an entity not attending the Pre-Bid Meeting.

The Town reserves the right to amend or terminate this invitation to bid, waive any informality, omission, or technical defect in the Bid Form, and to reject any or all proposals or to accept the proposal deemed most satisfactory to the Town of Ellington, if it is in the public interest to do so. In addition, this project is subject to land use approvals and if the same are not obtained within 61 days after opening of bids, the Town reserves the right to terminate the project.

Tiffany Pignataro Finance Officer

SECTION 00200 INSTRUCTIONS TO BIDDERS

TABLE OF ARTICLES

	Page
Article 1 - Defined Terms	1
Article 2 - Copies of Bidding Documents	2
Article 3 - Qualifications of Bidders	2
Article 4 - Examination of Bidding Documents, Other Related Data, and Site	2
Article 5 - Pre-Bid Conference	4
Article 6 - Site and Other Areas	5
Article 7 - Interpretations and Addenda	5
Article 8 - Bid Security	5
Article 9 - Contract Times	6
Article 10 - Liquidated Damages	6
Article 11 - Substitute and "Or-Equal" Items	6
Article 12 - Subcontractors, Suppliers, and Others	6
Article 13 - Preparation of Bid	7
Article 14 - Basis of Bid; Comparison of Bids	8
Article 15 - Submittal of Bid	8
Article 16 - Modification and Withdrawal of Bid	9
Article 17 - Opening of Bids	10
Article 18 - Bids to Remain Subject to Acceptance	10
Article 19 - Evaluation of Bids and Award of Contract	10
Article 20 - Contract Security and Insurance	11
Article 21 - Signing of Agreement	11
Article 22 - Sales and Use Taxes	12
Article 23 – Wage Rate Requirements	12
Article 24 – State Set-Aside and Contract Compliance Requirements	12

ARTICLE 1 - DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders will have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:
 - A. Issuing Office--The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered. The Issuing Office is:

Finance Department

Tiffany Pignataro, Finance Officer

55 Main Street

Ellington, CT 06029

Ph: (860) 870-3115; Fax: (860) 870-3158

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ARTICLE 2 - COPIES OF BIDDING DOCUMENTS

- 2.01 Digital copies of complete sets of the Bidding Documents will be provided upon an email request sent to publicworks@ellington-ct.gov. The email subject line should include reference to the "Hall Memorial Library Bid Documents".
- 2.02 Complete sets of Bidding Documents must be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.03 Owner and Engineer in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

ARTICLE 3 – INFORMATION TO BE INCLUDED WITH BID & QUALIFICATIONS OF BIDDERS

- 3.01 Members, officers, and employees of the Town of Ellington are disqualified from bidding on this project.
- 3.02 To demonstrate Bidder's qualifications to perform the Work, Bidder shall submit with its bid a written statement to demonstrate its previous experience, present commitments, and such other data relevant to its ability to perform the work. In addition, the following items shall be submitted with the Bid Form.
 - A. Nondiscrimination Certification as discussed in Article 24 below.
 - B. Evidence of Insurance per the requirements of Article 5 of the General Conditions.

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

- 4.01 Subsurface and Physical Conditions
 - A. No borings or test data indicating subsurface conditions are available.
- 4.02 Underground Facilities
 - A. Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site is based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others. Selected bidder shall be responsible to field verify existing utilities in the field.

- 4.03 Hazardous Environmental Condition
 - A. No hazardous materials testing has been performed
- 4.04 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated conditions appear in paragraphs 4.02, 4.03, and 4.04 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work appear in paragraph 4.06 of the General Conditions.
- 4.05 On request, Owner will provide Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies as Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies. Bidder shall comply with all applicable Laws and Regulations relative to locating of excavation and utility.
- 4.06 Additional Owner Provided Information:
 - A. Reference is made to Article 7 of the Supplementary Conditions for the identification of the general nature of other work that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) that relates to the Work contemplated by these Bidding Documents. On request, Owner will provide to each Bidder for examination access to or copies of Contract Documents (other than portions thereof related to price) for such other work.
 - B. Paragraph 6.13.C of the General Conditions states that if an Owner safety program exists it will be noted in the Supplementary Conditions.
- 4.07 It is the responsibility of each Bidder before submitting a Bid to:
 - A. Examine and carefully study the Bidding Documents, the other related data identified in the Bidding Documents, and any Addenda;
 - B. Visit the Site and become familiar with and satisfy Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
 - C. Become familiar with and satisfy Bidder as to all Federal, State, and local Laws and Regulations that may affect cost, progress, or performance of the Work;

- D. Carefully study all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in paragraph 4.02 of the General Conditions;
- E. Obtain and carefully study (or accept consequences for not doing so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) 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 applying any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents, and safety precautions and programs incident thereto;
- F. Agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents;
- G. Become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
- H. Correlate the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents; and
- I. Determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.
- 4.08 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

ARTICLE 5 - PRE-BID CONFERENCE

5.01 A mandatory Pre-Bid conference will be held at 10:00 a.m. on June 6, 2023 at the Department of Public Works office, 21 Main Street, Ellington, Connecticut.

Representatives of Owner and Engineer will be present to discuss the Project. Engineer will transmit to all prospective Bidders of record such Addenda as Engineer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective. No bid will be accepted from an entity not attending the Pre-Bid conference in person.

ARTICLE 6 - SITE AND OTHER AREAS

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

ARTICLE 7 - INTERPRETATIONS AND ADDENDA

- 7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to Finance Department in writing. Interpretations or clarifications considered necessary by Finance Officer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Finance Officer as having received the Bidding Documents. Questions received less than five days prior to the date for opening of Bids will not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 7.02 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Owner or Engineer.

ARTICLE 8 - BID SECURITY

- 8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of 5% of Bidder's maximum Bid price and in the form of a certified check or a Bid bond (EJCDC No. C-430, 2007 Edition) issued by a surety meeting the requirements of paragraphs 5.01 and 5.02 of the General Conditions.
- 8.02 The Bid security of the Successful Bidder will be retained until such Bidder has executed the Contract Documents, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within {15 days} after the Notice of Award, Owner may annul the Notice of Award and the Bid security of that Bidder will be forfeited. The Bid security of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Agreement or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be returned.

8.03 Bid security of other Bidders whom OWNER believes do not have a reasonable chance of receiving the award will be returned within seven days after the Bid opening.

ARTICLE 9 - CONTRACT TIMES

9.01 The anticipated construction start date is July 17, 2023. The project shall be substantially completed by October 15, 2023, and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions on or before June 1, 2024.

ARTICLE 10 -LIQUIDATED DAMAGES

10.01 Provisions for liquidated damages are set forth in the Agreement.

ARTICLE 11 - SUBSTITUTE AND "OR-EQUAL" ITEMS

11.01 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, or "or-equal" materials and equipment as defined in paragraph 6.05 of the General Conditions, or those substitute materials and equipment approved by the Owner or Engineer and identified by Addendum. The materials and equipment described in the Bidding Documents establish a standard of required type, function and quality to be met by any proposed substitute or "or-equal" item. Request for clarification of materials and equipment considered "or-equal" prior to the Effective Date of the Agreement must be received by the Finance Office more than 5 days prior to the date for receipt of Bids as required per Article 7. Each request shall conform to the requirements of paragraph 6.05 of the General Conditions. The burden of proof of the merit of the proposed item is upon the Bidder. Owner or Engineer's decision of approval or disapproval of a proposed item will be final. If Owner or Engineer approves any proposed substitute item, such approval will be set forth in an Addendum issued to all prospective Bidders as required by Article 7. Bidders shall not rely upon approvals made in any other manner.

ARTICLE 12 - SUBCONTRACTORS, SUPPLIERS, AND OTHERS

12.01 The Bidder shall submit, with their bid, a list of all such Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, individual, or entity if requested by Owner. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit a substitute, in which case apparent Successful Bidder shall submit an acceptable substitute, Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such

substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.

- 12.02 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest responsible Bidder that proposes to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner and Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to revocation of such acceptance after the Effective Date of the Agreement as provided in paragraph 6.06 of the General Conditions.
- 12.03 Contractor shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom Contractor has reasonable objection.
- 12.04 The Contractor shall not award work to Subcontractor(s) in excess of the limits stated in SC 6.06.

ARTICLE 13 - PREPARATION OF BID

- 13.01 The Bid form is included with the Bidding Documents. Additional copies may be obtained from Finance Officer.
- 13.02 All blanks on the Bid form shall be completed in ink and the Bid signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid From. A Bid price shall be indicated for each section and unit price item listed therein, or the words "No Bid," "No Change," or "Not Applicable" entered.
- 13.03 A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be provided on the Bid Form.
- 13.04 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be provided on the Bid Form.
- 13.05 A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown.
- 13.06 A Bid by an individual shall show the Bidder's name and business address.

- 13.07 A Bid by a joint venture shall be executed by each joint venturer in the manner indicated on the Bid form. The official address of the joint venture must be provided on the Bid Form.
- 13.08 All names shall be printed in ink below the signatures.
- 13.09 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers and dates of which shall be filled in on the Bid form.
- 13.10 The postal and email addresses and telephone number for communication regarding the Bid shall be shown.
- 13.11 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state or locality where the Project is located issued by the Bidder's legal counsel or Bidder shall covenant in writing to obtain such qualification prior to award of the Contract and attach such covenant to the Bid. Bidder's state contractor license number, if any, shall also be shown on the Bid Form.

ARTICLE 14 - BASIS OF BID; COMPARSION OF BIDS

- 14.01 Unit Price Bid (see Bid Form and Agreement)
- 14.02 Allowances

The bid shall include a cash allowance payable to the Ellington Police Department for their work associated with providing uniformed officers and cruisers for traffic control during lane closures as specified in the Contract Documents. This cash allowance has been computed in accordance with Paragraph 11.02 of the General Conditions (see Bid Form).

ARTICLE 15 - SUBMITTAL OF BID

- 15.01 With each copy of the Bidding Documents, a Bidder is furnished one separate unbound copy of the Bid Form, and the Bid bond form. The unbound copy of the Bid Form is to be completed and submitted with all the attachments outlined in Article 7 of the Bid Form.
- 15.02 A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the Advertisement for Bids and shall be enclosed in an opaque sealed envelope plainly marked with the Project title, the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate envelope plainly marked on the outside with the notation "BID ENCLOSED." When using the mail or other delivery system, the Bidder is

totally responsible for the mail or other delivery system delivering the Bid at the place and prior to the time indicated in the Advertisement for Bid. Postmarks prior to the time established for opening bids does not satisfy this condition. A mailed Bid shall be addressed to Owner at address in Article 1.01 of Bid Form. Bids received prior to the time established herein for the opening of the same will be securely kept unopened. No responsibility will be attached to an office for premature opening of a bid not properly addressed or identified. The Owner will neither accept nor consider a bid which is received after the time established herein for the opening of the same, regardless of the cause for delay. The same will be returned unopened. Faxed bids will not be considered.

15.03 "FREEDOM OF INFORMATION ACT: All Information submitted in a Bid or in response to a request for additional information is subject to disclosure under the Connecticut Freedom of Information Act as amended and judicially interpreted. A bidder's responses may contain financial, trade secret or other data that is claims should not be public (the "Confidential Information"). A bidder must identify specifically the pages and portions of its proposal or additional information that contain the claimed Confidential Information by visibly marking all such pages and portions. Provided that the bidder cooperates with the Town as described in this section, the Town shall, to the extent permitted by law, protect from unauthorized disclosure such Confidential Information. If the Town receives a request for a bidder's Confidential Information, it will promptly notify the bidder in writing of such request and provide the bidder with a copy of any written disclosure request. The bidder may provide written consent to the disclosure or any object to the disclosure by notifying the Town in writing to withhold disclosure of the information, identifying in the notice the basis for its objection, including the statutory exemption(s) from disclosure. The bidder shall be responsible for defending any complaint brought in connection with the nondisclosure, including but not limited to appearing before the Freedom of Information Commission and providing witnesses and documents as appropriate.

ARTICLE 16 - MODIFICATION AND WITHDRAWAL OF BID

- 16.01 A Bid may be modified or withdrawn by an appropriate document duly executed in the manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids.
- 16.02 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid or negotiated, that Bidder will be disqualified from further bidding on the Work. This provision to withdraw a Bid without forfeiting the Bid security does not apply to Bidder's errors in judgment in preparing the Bid. Except as

specifically provided herein, no bid may be withdrawn for a period of 61 days after opening of the bids without approval and written consent of the Owner.

ARTICLE 17 - OPENING OF BIDS

17.01 Bids will be opened at the time and place indicated in the Advertisement for Bids and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 18 - BIDS TO REMAIN SUBJECT TO ACCEPTANCE

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

ARTICLE 19 - EVALUATION OF BIDS AND AWARD OF CONTRACT

- 19.01 Owner reserves the right to amend or terminate this invitation to bid, to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to be non-responsible. Owner may also reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder. Owner also reserves the right to waive all informalities, omissions, or technical defects not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder. In addition, this project is subject to land use approvals and if the same are not obtained within 61 days after opening of bids, the Town reserves the right to terminate the project.
- 19.02 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.
- 19.03 In evaluating Bids, 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.
- 19.04 In evaluating Bidders, Owner will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Supplementary Conditions.

- 19.05 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities to perform the Work in accordance with the contract Documents.
- 19.06 If the Contract is to be awarded, Owner will award the Contract to the lowest responsible Bidder whose Bid conforms with all the material terms and conditions of the Instructions to Bidders, provided that the bid is reasonable and determined to be in the best interest of the Owner. Although price is a factor in the awarding of the bid, it is not the only factor, and due consideration will be given to the other factors set forth in this Article 19. If detailed in the bid form, factors such as discounts, transportation costs, and life cycle costs may be used to determine which bidder, if any, is to be offered the award.
- 19.07 Owner will not award the Contract to any person or entity that is in arrears or in default to the Owner with regard to any tax, debt, contractor or other obligation.

ARTICLE 20 - CONTRACT SECURITY AND INSURANCE

20.01 Article 5 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it shall be accompanied by such bonds.

ARTICLE 21 - SIGNING OF AGREEMENT

- 21.01 When 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 as attached thereto. Within 15 days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner. Within ten days thereafter, Owner shall deliver one fully signed counterpart to Successful Bidder with a complete set of the Drawings with appropriate identification. Notwithstanding any provisions herein to the contrary, the Notice of Award does not provide the Bidder with any rights and does not impose on the Owner any obligations. The Owner is free to withdraw its award at any time, for any reason prior to the signing of the Agreement.
- 21.02 Concurrence by the Connecticut Department of Transportation is required before the award of the Contract.

ARTICLE 22 - SALES AND USE TAXES

22.01 OWNER is exempt from Connecticut State sales and use taxes on materials and equipment to be incorporated in the Work. Said taxes shall not be included in the Bid. Refer to paragraph 6.10 of the Supplementary Conditions for additional information.

ARTICLE 23 – WAGE RATE REQUIREMENTS

- 23.01 In accordance with the Contract Provisions provided in Exhibit 1 of Division 0 of this Project Manual, the prevailing wage rates published by the State of Connecticut Department of Labor provided with these bidding documents apply to this project.
- 23.02 The Contractor must comply with the Prevailing Wage Rates as determined by the State of Connecticut Department of Labor. The Contractor must provide written certification that they and their respective subcontractors have complied with the Prevailing Wage Rate requirements for the period during which the work is performed, including submittal of weekly certified payrolls to the Owner.

ARTICLE 24 – SET ASIDE & CONTRACT COMPLIANCE REQUIREMENTS

24.01 The Contractor who is selected to perform this State funded project must comply with CONN. GEN. STAT. §§4a-60, 4a-60a, 4a-60g, and 46a-68b through 46a-68f, inclusive, as amended by June 2015 Special Session Public Act 15-5.

State law requires a minimum of twenty-five (25%) of the state-funded portion of the contract to be set aside for award to subcontractors holding current certification from the Connecticut Department of Administrative Services ("DAS") under the provisions of CONN. GEN. STAT. §4a-60g. (25% of the total state-funded value with DAS-certified Small Businesses and 6.25% of the total state-funded value with DAS-certified Minority, Women-, and/or Disabled-owned Businesses.) The contractor must demonstrate good faith effort to meet the 25% set-aside goals.

For municipal public works contracts and quasi-public agency projects, the contractor must file a written or electronic non-discrimination certification with the Commission of Human Rights and Opportunities. Forms can be found at:

https://portal.ct.gov/OPM/Fin-PSA/Forms/Nondiscrimination-Certification

- 24.02 Additional information and forms related to the applicable Contract Compliance Requirements are provided in Exhibits 1 and 2 at the end Division 0 Bidding Requirements and Contract Forms.
- 24.03 If the successful Bidder is a "nonresident contractor" as defined in CGS 12-430(7)(A), as amended, it shall comply with the provisions of such statute and, prior to the execution of the Agreement, shall furnish the Owner with proof that it is a

"verified contractor" within the meaning of such statute or that is has posted a bond with the Commission of Revenue Services in compliance with such statutes.

24.04 Pursuant to CGS 31-286a, prior to execution of the Agreement, the Successful Bidder must provide the Owner with a current statement from the State Treasurer that, to the best of his/her knowledge and belief, as of the date of the statement, the Successful Bidder was not liable to the State for any worker's compensation payments made pursuant to CGS 31-355.

SECTION 00410 BID FORM

TABLE OF ARTICLES

D

	rage
Article 1 - Bid Recipient	1
Article 2 - Bidder's Acknowledgments	1
Article 3 - Bidder's Representations	2
Article 4 – Bidder's Certification	3
Article 5 - Basis of Bid	4
Article 6 - Time of Completion	6
Article 7 - Attachments to Bid	7
Article 8 - Defined Terms	7
Article 9 - Bid Submittal	8

ARTICLE 1 - BID RECIPIENT

1.01 This Bid Is Submitted To:

Via delivery to:

Finance Department Tiffany Pignataro, Finance Officer 55 Main Street Ellington, CT 06029

Via U.S. Mail:

Finance Department Tiffany Pignataro, Finance Officer P.O. Box 187, 55 Main Street Ellington, CT 06029

(hereinafter called "Owner")

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

ARTICLE 2 - BIDDER'S ACKNOWLEDGMENTS

2.01 Bidder accepts all of the terms and conditions of the Advertisement and Instructions to Bidders, including without limitations those dealing with the dispositions of Bid security. The Bid will remain subject to acceptance for 61 days after the Bid opening, or

BID FORM 00410-1 of 10

for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 - BIDDER'S REPRESENTATIONS

- 3.01 In submitting this Bid, Bidder represents that:
 - A. Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged:

Addendum No.	Addendum Date

- B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with and is satisfied as to all Federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Bidder has considered the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Siterelated reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder's safety precautions and programs.
- E. Based on the information and observations referred to in Paragraph 3.01.D above, 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.
- F. Bidder is aware of the general nature of the Work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.

BID FORM 00410-2 of 10

- G. Bidder has requested written clarification regarding any conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents pursuant to Article 7 of the Instructions to Bidders, and the written resolution thereof by Owner or Engineer, if any, is acceptable to Bidder.
- H. 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.

ARTICLE 4 - BIDDER'S CERTIFICATION

- 4.01 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 and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation;
 - B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid:
 - C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
 - D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
 - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

BID FORM 00410-3 of 10

ARTICLE 5 - BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following unit price(s):

Item	following unit price(s):		Estimated	Unit	Total
No.	Description	Unit	Quantity	Price	Estimated Price
1	MOBILIZATION/DEMOBILIZATION	LS	1		
2	TEMPORARY FACILITIES	LS	1		
3	UNIFORMED OFFICERS (ALLOWANCE)	HR	24	\$100.00	\$2,400.00
4	MAINTENANCE & PROTECTION OF TRAFFIC	LS	1		
5	CONSTRUCTION STAKING	LS	1		
6	SILT SACKS	EA	7		
7	SEDIMENT BARRIER	LF	410		
8	REMOVAL OF TREES, SHRUBS, STUMPS & VEGETATION	LS	1		
9	REMOVAL OF MATERIALS FROM EXISTING PLANTING BEDS	SF	4,390		
10	TURF REMOVAL	SF	5,280		
11	SAWCUT PAVEMENT	LF	206		
12	DEMOLISH EXISTING BITUMINOUS CURB	LF	947		
13	DEMOLISH EXISTING CONCRETE WALK	SY	389		
14	RECLAIM EXISTING BITUMINOUS PAVEMENT	SY	2,575		
15	12" HDPE STORM SEWER	LF	20		
16	15" HDPE STORM SEWER	LF	70		
17	4" HDPE STORM SEWER	LF	36		
18	NEW CATCH BASIN	EA	2		
19	NEW STORM MANHOLE	EA	2		
20	CONVERT EXISTING CB TO MANHOLE	EA	2		
21	SUBSURFACE INFILTRATION SYSTEM	LS	1		
22	CONNECT NEW PIPE TO EXISTING STRUCTURE	EA	2		

BID FORM 00410-4 of 10

Item No.	Description	Unit	Estimated Quantity	Unit Price	Total Estimated Price
23	STRIP TOPSOIL	SY	4,042		
24	BOX-OUT FOR PARKING LOT EXPANSION	SY	2,700		
25	SUBGRADE FOR NEW SITTING AREA	SY	287		
26	GRAVEL SUBBASE FOR PARKING LOT EXPANSION	CY	600		
27	SPREAD RECLAIMED AGGREGATE BASE FOR PARKING LOT EXPANSION	CY	235		
28	PROCESSED AGGREGATE BASE FOR PARKING LOT EXPANSION	CY	235		
29	BITUMINOUS CONCRETE PAVEMENT	TON	855		
30	BITUMINOUS LIP CURB	LF	1,910		
31	PAVEMENT MARKINGS	LS	1		
32	STENCILED CONCRETE SIDEWALK	SF	5,315		
33	HAUNCH & REINFORCEMENT FOR INTEGRAL CURB	LF	243		
34	DETECTABLE WARNING STRIP	EA	4		
35	RECYCLED ASPHALT WALKWAY	LF	180		
36	RESPREAD TOPSOIL FROM STOCKPILE	SY	2,046		
37	TURF ESTABLISHMENT	SY	1,850		
38	BARK MULCH PLANTING BED	SF	9,750		
39	ROUND LANDSCAPE STONE PLANTING BED	SF	672		
40	CRUSHED ANGULAR STONE	SF	483		
41	STEEL EDGING	LF	1,873		
42	PLANTINGS	LS	1		
43	SITE FURNISHINGS	LS	1		
44	CONCRETE BASE FOR SITE FURNISHINGS	SF	220		
45	NEW LIGHT POLE, BASE & FIXTURE	EA	5		

BID FORM 00410-5 of 10

Item No.	Description	Unit	Estimated Quantity	Unit Price	Total Estimated Price
46	REPLACE LIGHT POLE & FIXTURE ON EXISTING BASE	EA	10		
47	REPLACE LIGHT FIXTURE ON EXISTING POLE & PAINT POLE	EA	2		
48	ELECTRICAL CONDUIT & WIRING FOR SITE LIGHTING	LF	420		
49	ELECTRICAL CONDUIT FOR FUTURE EV CHARGING STATIONS	LF	315		
50	ELECTRIC HANDHOLE	EA	2		
51	RELOCATE STOP SIGN	EA	1		
52	CEMENT BASED SKIM COAT	SF	180		
53	SEGMENTAL BLOCK SITTING WALL	SF	464		
54	VINYL FENCE	LF	199		
	Total of All Bid Prices				

Unit Prices have been computed in accordance with paragraph 11.03.B of the General Conditions.

Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

5.02 Allowances

The above bid includes a cash allowance payable to the Ellington Police Department for their work associated with providing uniformed officers and cruisers for traffic control during lane closures as specified in the Contract Documents. This cash allowance has been computed in accordance with Paragraph 11.02 of the General Conditions.

ARTICLE 6 - TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with paragraph 14.07 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

BID FORM 00410-6 of 10

ARTICLE 7 - ATTACHEMENTS TO THIS BID

- 7.01 The following documents are attached to and made a condition of the Bid:
 - A. Required Bid security in the form of a Bid Bond (EJCDC No. C-430) or Certified Check (circle type of security provided);
 - B. List of Proposed Subcontractors
 - C. List of Proposed Suppliers;
 - D. Evidence of authority to do business in the state or jurisdiction of the Project issued by Bidder's Legal Counsel; or a written covenant to obtain such license within the time frame for acceptance of Bids;
 - E. Non-discrimination Certification;
 - F. Bidder Contract Compliance Monitoring Report
 - G. Contractor's Certification of Compliance with CGS 31-57b.
 - H. Evidence of Insurance per Article V of the General Conditions.

ARTICLE 8 - DEFINED TERMS

8.01 The terms used in this Bid with the initial capital letters have the meanings indicated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

BID FORM 00410-7 of 10

ARTICLE 9 - BID SUBMITTAL

9.01 This Bid is submitted by:		
If Bidder is:		
An Individual		
Name (typed or printed):	SEAL, if required	
By:	by State	
(Individual's signature) Doing business as:	_	
A Partnership		
Partnership Name:	SEAL, if required	
By:	by State	
By: (Signature of general partner attach evidence of authority to sign)		
Name (typed or printed):		
A Corporation		
Corporation Name:		
State or Jurisdiction of Incorporation:	_	
Type (General Business, Profession, Service, Limited Liability):		
By:(Signature attach evidence of authority to sign)		
Name (typed or printed):		

CORPORATE SEAL, if required by State

Attest(Signature of Corporate	
Date of Qualification to do business in Project is located] is/	[State or other jurisdiction when
oint Venture	
Name of Joint Venture:	
First Joint Venture Name:	SEAL, if required by State
By:	
Name (typed or printed):	
Title:	
Second Joint Venture Name:	SEAL, if required by State
By:	
(Signature of joint venture partner attach	evidence of authority to sign)
Name (typed or printed):	
Title:	
	f signing for each individual partnershir
(Each joint venturer must sign. The manner of and corporation that is party to the venture should	

BID FORM 00410-9 of 10

Business Phone No. ()	
Business FAX No. ()	
Business E-Mail Address	
State Contractor License No	(If applicable)
Employer's Tax ID No.	
Phone and FAX Numbers, and Address for receipt of official comfrom Business contact information:	nmunications, if different
22 Bid submitted on , 20 .	

BID FORM 00410-10 of 10

BID BOND

Any sing	ular reference to Bidder, Surety	, Owner or oth	ner party	shall be considered	plural where	applicable.
BIDDER	(Name and Address):					
SURETY	(Name and Address of Princip	al Place of Bı	isiness):			
Tow 55 N Ellir	(Name and Address): on of Ellington Main Street ngton, CT 06029					
	Due Date: cription: Hall Memorial Library	Parking Lot	& Sidew	alk Improvements		
Date	d Number: e (<i>Not earlier than Bid due date)</i> al sum	:			\$	
		(Words)			<u> </u>	Figures)
•	nd Bidder, intending to be legally at to be duly executed by an auth	•	•		rth below, do	each cause this
BIDDEF	R		SURE	ГҮ		
Ridder's	Name and Corporate Seal	(Seal)	Surety'	's Name and Corpora	ate Seal	_ (Seal)
	Traine and Corporate Sear		Burety	s rume and corpore	ne seur	
By:	Signature		By:	Signature (Attach	Power of At	torney)
	Print Name			Print Name		_
	Title			Title		_
Attest:			Attest:			_
	Signature			Signature		
	Title			Title		<u> </u>
	ove addresses are to be used for		equired n	otice. Provide exect	ution by any	additional
pariies, s	uch as joint venturers, if necess	ary.				

EJCDC C-430 Bid Bond (Penal Sum Form)
Prepared by the Engineers Joint Contract Documents Committee.
00430-1 of 2

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

Notice of Award

Date:

Project: Hall Memorial Library Parking Lot & Sidewalk Improv	vements
Owner: Town of Ellington	Owner's Contract No.:
Contract: Hall Memorial Library Parking Lot & Sidewalk	Engineer's Project No.: 2018-801
Bidder:	•
Bidder's Address:	
You are notified that your Rid dated for the above	e Contract has been considered. You are

The Total Contract Price of your Contract is \$______. This Contract Price includes unit price work items in accordance with the Table provided on the Bid Form and reproduced in the Agreement. These prices for unit price work are based on estimated quantities. As provided in Paragraph 11.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer as provided in Paragraph 9.07 of the General Conditions. The final Contract Price will be adjusted based on the actual quantities of unit price work.

<u>Five (5)</u> copies of the proposed Agreement accompany this Notice of Award.

the Successful Bidder and are awarded a Contract for the Total Work.

Upon receipt of the signed Agreement, up to five (5) sets of additional copies of the Drawings, the Project Manual and all other Contract Documents will be made available to you immediately.

You must comply with the following conditions precedent within [15] days of the date you receive this Notice of Award.

- 1. Deliver to the Owner four (4) fully executed counterparts of the Agreement.
- 2. Deliver with the executed Agreement the Contract security [Bonds] as specified in the Instructions to Bidders (Article 20), General Conditions (Paragraph 5.01), and Supplementary Conditions (Paragraph SC-5.01).
- 3. Other conditions precedent:
 - Deliver to the Owner and each additional insured as listed in the Supplementary Conditions, an Insurance Certificate providing evidence of insurance coverage in conformance with Article 5 of the General Conditions and the Supplementary Conditions.
 - Deliver documentation to satisfy requirements of CGS 12-430(7)(A) and CGS 31-286a.

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

executed counterpart of the C	Contract Documents.
	Owner's Representative
	By:Authorized Signature
Copy to Engineer	Title

Within ten days after you comply with the above conditions, Owner will return to you one fully

AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT (UNIT PRICE)

THIS AGREEMENT is by and between	Town of Ellington	("Owner") and
		("Contractor").
Owner and Contractor hereby agree as follows:		

ARTICLE 1 – WORK

Contractor shall complete all Work as specified or indicated in the Contract Documents 1.01 for the Project titled Hall Memorial Library Parking Lot and Sidewalk **Improvements**. The work to be performed under this contract includes a parking lot expansion and new stenciled sidewalk at the Hall Memorial Library, 93 & 99 Main Street in Ellington. The scope of work includes reclamation and re-pavement of 2,575 square yards of existing bituminous parking lot, installation of approximately 2,700 square yards of new bituminous parking lot and 5,315 square feet of stenciled concrete sidewalk. The project consists of providing all labor, materials, machinery, tools, equipment and other means of construction necessary and incidental to completion of the work shown on the plans and described in the specifications including, but not necessarily limited to the following: tree removal, reclamation and re-use of existing bituminous pavement, demolition and disposal of existing curbing and concrete sidewalk, installation of storm drain structures and piping, installation of new bituminous parking lot, installation of pole mounted light fixtures, installation of new stenciled concrete sidewalk and curb ramps, installation of a segmental block sitting wall, landscaping and field verifying.

ARTICLE 2 – THE PROJECT

2.01 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows: Total Work as described in Section 1.01.

ARTICLE 3 – ENGINEER

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

ARTICLE 4 – CONTRACT TIMES

- 4.01 Time of the Essence
 - A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

- 4.02 Dates for Substantial Completion and Final Payment
 - A. The anticipated construction start date is July 17, 2023. The Work will be substantially completed on or before October 15, 2023, and completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions on or before June 1, 2024.

4.03 Liquidated Damages

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty), Contractor shall pay Owner \$2,000.00 for each day that expires after the time specified in Paragraph 4.02 above for Substantial Completion until the Work is substantially complete. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time or any proper extension thereof granted by Owner, Contractor shall pay Owner \$1,500.00 for each day that expires after the time specified in Paragraph 4.02 above for completion and readiness for final payment until the Work is completed and ready for final payment.

ARTICLE 5 – CONTRACT PRICE

- 5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to Paragraphs 5.01.A and 5.01.B below:
 - A. For all Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the actual quantity of that item:

Item No.	Description	Unit	Estimated Quantity	Unit Price	Total Estimated Price
1	MOBILIZATION/DEMOBILIZATION	LS	1		
2	TEMPORARY FACILITIES	LS	1		
3	UNIFORMED OFFICERS (ALLOWANCE)	HR	24	\$100.00	\$2,400.00
4	MAINTENANCE & PROTECTION OF TRAFFIC	LS	1		
5	CONSTRUCTION STAKING	LS	1		

6	SILT SACKS	EA	7		
Item No.	Description	Unit	Estimated Quantity	Unit Price	Total Estimated Price
7	SEDIMENT BARRIER	LF	410		
8	REMOVAL OF TREES, SHRUBS, STUMPS & VEGETATION	LS	1		
9	REMOVAL OF MATERIALS FROM EXISTING PLANTING BEDS	SF	4,390		
10	TURF REMOVAL	SF	5,280		
11	SAWCUT PAVEMENT	LF	206		
12	DEMOLISH EXISTING BITUMINOUS CURB	LF	947		
13	DEMOLISH EXISTING CONCRETE WALK	SY	389		
14	RECLAIM EXISTING BITUMINOUS PAVEMENT	SY	2,575		
15	12" HDPE STORM SEWER	LF	20		
16	15" HDPE STORM SEWER	LF	70		
17	4" HDPE STORM SEWER	LF	36		
18	NEW CATCH BASIN	EA	2		
19	NEW STORM MANHOLE	EA	2		
20	CONVERT EXISTING CB TO MANHOLE	EA	2		
21	SUBSURFACE INFILTRATION SYSTEM	LS	1		
22	CONNECT NEW PIPE TO EXISTING STRUCTURE	EA	2		
23	STRIP TOPSOIL	SY	4,042		
24	BOX-OUT FOR PARKING LOT EXPANSION	SY	2,700		
25	SUBGRADE FOR NEW SITTING AREA	SY	287		
26	GRAVEL SUBBASE FOR PARKING LOT EXPANSION	CY	600		
27	SPREAD RECLAIMED AGGREGATE BASE FOR PARKING LOT EXPANSION	CY	235		
28	PROCESSED AGGREGATE BASE FOR	CY	235		

	PARKING LOT EXPANSION				
Item No.	Description	Unit	Estimated Quantity	Unit Price	Total Estimated Price
29	BITUMINOUS CONCRETE PAVEMENT	TON	855		
30	BITUMINOUS LIP CURB	LF	1,910		
31	PAVEMENT MARKINGS	LS	1		
32	STENCILED CONCRETE SIDEWALK	SF	5,315		
33	HAUNCH & REINFORCEMENT FOR INTEGRAL CURB	LF	243		
34	DETECTABLE WARNING STRIP	EA	4		
35	RECYCLED ASPHALT WALKWAY	LF	180		
36	RESPREAD TOPSOIL FROM STOCKPILE	SY	2,046		
37	TURF ESTABLISHMENT	SY	1,850		
38	BARK MULCH PLANTING BED	SF	9,750		
39	ROUND LANDSCAPE STONE PLANTING BED	SF	672		
40	CRUSHED ANGULAR STONE	SF	483		
41	STEEL EDGING	LF	1,873		
42	PLANTINGS	LS	1		
43	SITE FURNISHINGS	LS	1		
44	CONCRETE BASE FOR SITE FURNISHINGS	SF	220		
45	NEW LIGHT POLE, BASE & FIXTURE	EA	5		
46	REPLACE LIGHT POLE & FIXTURE ON EXISTING BASE	EA	10		
47	REPLACE LIGHT FIXTURE ON EXISTING POLE & PAINT POLE	EA	2		
48	ELECTRICAL CONDUIT & WIRING FOR SITE LIGHTING	LF	420		
49	ELECTRICAL CONDUIT FOR FUTURE EV CHARGING STATIONS	LF	315		
50	ELECTRIC HANDHOLE	EA	2		
51	RELOCATE STOP SIGN	EA	1		
	· · · · · · · · · · · · · · · · · · ·				

52	CEMENT BASED SKIM COAT	SF	180		
53	SEGMENTAL BLOCK SITTING WALL	SF	464		
54	VINYL FENCE	LF	199		

B. The Bid prices for Unit Price Work set forth as of the Effective Date of the Agreement are based on estimated quantities. As provided in Paragraph 11.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer as provided in Paragraph 9.07 of the General Condition.

5.02 Allowances

The above bid includes a cash allowance payable to the Ellington Police Department for their work associated with providing uniformed officers and cruisers for traffic control during lane closures as specified in the Contract Documents. This cash allowance has been computed in accordance with Paragraph 11.02 of the General Conditions.

ARTICLE 6 – PAYMENT PROCEDURES

- 6.01 Submittal and Processing of Payments
 - A. Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.
- 6.02 Progress Payments; Retainage
 - A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 30th day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below. All such payments will be measured by the schedule of values established as provided in Paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements.
 - 1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Engineer may determine or Owner may withhold, including but not limited to liquidated damages, in accordance with Paragraph 14.02 of the General Conditions.
 - a. 95 percent of Work completed (with the balance being retainage); and

- b. <u>95</u> percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 100 percent of the Work completed, less the retainage and such amounts as Engineer shall determine in accordance with Paragraph 14.02.B.5 of the General Conditions and less 100 percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the tentative list of items to be completed or corrected attached to the certificate of Substantial Completion.

6.03 Final Payment

A. Upon final completion and acceptance of the Work in accordance with Paragraph 14.07 of the General Conditions, Owner shall pay the remainder of the Contract Price and retainage as recommended by Engineer as provided in said Paragraph 14.07.

ARTICLE 7 – CONTRACTOR'S REPRESENTATIONS

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

- F. Based on the information and observations referred to in Paragraph 8.01.E above, Contractor does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has requested written clarification of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- J. Prompt Payment Provisions In accordance with Conn. Gen. Stat. §49-41a, in each of its contracts with subcontractors (if permitted as provided herein) or materials suppliers, the Contractor shall agree to pay any amounts due for labor performed or materials furnished not later than thirty (30) days after the date the Contractor receives payment from the Town that encompasses the labor performed or materials furnished by such subcontractor or supplier. The Contractor shall also require in each of its contracts with subcontractors that such subcontractor shall, within thirty (30) days of receipt of payment from the Contractor, pay any amounts due any sub-subcontractor or supplier, whether for labor performed or materials furnished. Each payment requisition shall be accompanied by a statement showing the status of all pending change orders or change directives and approved changes to the contract. Such statement shall identify the pending change orders or change directives, and shall include the date such change orders or directives were initiated, the additional cost and/or time associated with their performance, and a description of any work completed. The Contractor shall require each of its subcontractors and suppliers to include a similar statement with each of their payment requisitions or invoices.
- K. Contractor shall retain and maintain accurate records and documents relating to performance of services under this Agreement for a minimum of three (3) years from the expiration of the Agreement and shall make then available for inspection and audit by DOT or its representative. Further, Contractor shall incorporate this paragraph into any agreement it enters into with any subcontractor providing services under this Agreement

ARTICLE 8 – CONTRACT DOCUMENTS

- 8.01 *Contents*
 - A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 1 to 13, inclusive).

- 2. Performance bond (pages 1 to 3, inclusive).
- 3. Payment bond (pages 1 to 3, inclusive).
- 4. General Conditions (pages 1 to 61, inclusive).
- 5. Supplementary Conditions (pages 1 to 5, inclusive).
- 6. Most recent revision of Drawings as listed on List of Drawings, Section 00015 of the Project Manual.
- 7. Addendum 1 (XX pages)
- 8. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid (XX pages).
- 9. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - a. Notice to Proceed (pages 1 to 2, inclusive).
 - b. Work Change Directives.
 - c. Change Orders.
- B. The documents listed in Paragraph 8.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 8.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the General Conditions.

ARTICLE 9 – MISCELLANEOUS

- 9.01 *Terms*
 - A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.
- 9.02 Assignment of Contract
 - A. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to

the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

9.03 Successors and Assigns

A. Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

9.04 Severability

A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

9.05 Non-Discrimination and Affirmative Action Provisions

A. (1) The contractor agrees and warrants that in the performance of the contract such contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, status as a veteran, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the state of Connecticut; and the contractor further agrees to take affirmative action to ensure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, status as a veteran, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such contractor that such disability prevents performance of the work involved; (2) The contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the contractor, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the Commission on Human Rights and Opportunities; (3) The contractor agrees to provide each labor union or representative of workers with which such contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment; (4) The contractor agrees to comply with each provision of this section and sections 46a-68e and 46a-68f and with

- each regulation or relevant order issued by said commission pursuant to sections 46a-56, 46a-68e, 46a-68f and 46a-86; and (5) The contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the contractor as relate to the provisions of this section and section 46a-56.
- B. If the contract is a public works contract, municipal public works contract or contract for a quasipublic agency project, the contractor agrees and warrants that he or she will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works or quasi-public agency project.
- C. For the purposes of this section, "contract" includes any extension or modification of the contract, "contractor" includes any successors or assigns of the contractor, "marital status" means being single, married as recognized by the state of Connecticut, widowed, separated or divorced, and "mental disability" means one or more mental disorders, as defined in the most recent edition of the American Psychiatric Association's "Diagnostic and Statistical Manual of Mental Disorders", or a record of or regarding a person as having one or more such disorders. For the purposes of this section, "contract" does not include a contract where each contractor is (1) a political subdivision of the state, including, but not limited to, a municipality, unless the contract is a municipal public works contract or quasi-public agency project contract, (2) any other state, as defined in section 1- 267, (3) the federal government, (4) a foreign government, or (5) an agency of a subdivision, state or government described in subdivision (1), (2), (3) or (4) of this subsection.
- D. For the purposes of this section, "minority business enterprise" means any small contractor or supplier of materials fifty-one per cent or more of the capital stock, if any, or assets of which is owned by a person or persons: (1) Who are active in the daily affairs of the enterprise, (2) who have the power to direct the management and policies of the enterprise, and (3) who are members of a REV. 20220808 minority, as such term is defined in subsection (a) of section 32-9n of the Connecticut General Statutes; and "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations. "Good faith efforts" shall include, but not be limited to, those reasonable initial efforts necessary to comply with statutory or regulatory requirements and additional or substituted efforts when it is determined that such initial efforts will not be sufficient to comply with such requirements. \
- E. The contractor shall develop and maintain adequate documentation, in a manner prescribed by the Commission on Human Rights and Opportunities, of its good faith efforts.
- F. The contractor shall include the provisions of subsections (a) and (b) of this section in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the state, and in every subcontract entered into in order to fulfill any obligation of a municipal public works contract or contract for a quasi-public agency project, and such provisions shall be binding on a subcontractor, vendor or

manufacturer, unless exempted by regulations or orders of the Commission on Human Rights and Opportunities. The contractor shall take such action with respect to any such subcontract or purchase order as the commission may direct as a means of enforcing such provisions, including sanctions for noncompliance in accordance with section 46a56; provided, if such contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the commission regarding a state contract, the contractor may request the state of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the state and the state may so enter.

9.06 Contractor's Certifications

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 9.06:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

9.07 Default and Remedy

A. Termination. In addition to the remedies provided in Article 15 of the Standard General Conditions of the Construction Contract, if, at any time during the term of this Agreement, the Contractor, in the sole discretion of the Owner: (a) has failed to perform the Work in a competent and satisfactory manner; (b) has become insolvent; (c) makes an assignment for the benefit of creditors; (d) files a voluntary petition in bankruptcy; (e) is subject to an involuntary petition in bankruptcy that is not discharged within thirty (30) days; (f) abandons the Work; (g) subcontracts, assigns, transfers, conveys or otherwise disposes of its obligations under the Agreement expect as specifically approved by the Owner; or (h) fails to comply with any other term or condition contained in the Agreement, the Town shall have the right to terminate the Agreement upon ten (10) days written notice to the Contractor.

B. Remedies. In the event of a termination of this Agreement by the Owner pursuant to subparagraph A above, the Contractor acknowledges that any such breach will cause irreparable damage to the Owner, the exact amount of which will be difficult or impossible to ascertain, and that remedies of law for any such breach will be inadequate. Accordingly, the Contractor shall pay the Owner, as liquidated damages, the amount of any excess of the price of a new contract over the Contract Price provided herein, plus any legal or other costs or expenses incurred by the Owner in terminating this Agreement and securing a new bid. Nothing contained in this Article 9.07 shall affect the Owner's right to liquidated damages for failure of Contractor to perform in a timely manner, as provided in Article 4.03.

9.08 Dispute Resolution

A. The parties agree that any dispute under this Agreement is to be resolved by binding arbitration under the rules of the American Arbitration Association before a single arbitrator with any hearing to be held in Tolland County, CT. The decision of the arbiter shall be binding on the parties and may be submitted to the Superior Court for the Judicial District of Tolland at Rockville for confirmation as a judgment pursuant to Chapter 909, CGS Sec. 52-408 to 52-423, which court shall have exclusive jurisdiction or venue in these matters. Unless otherwise mutually agreed, each party is to pay its own expenses including attorney's fees and to share the cost of arbitration equally.

9.09 Indemnification

A. Contractor hereby agrees to defend, indemnify and hold harmless the Owner, its agents, employees, officers and official from any and all claims, demands, liabilities, and lawsuits, including reasonable attorney's fees incurred thereby, resulting from or pertaining to any alleged violations by Contractor and any Subcontractors, if any, of any applicable federal, state laws, rules and regulations in effect and applicable to the Work, including without limitation any nondiscriminatory employment laws and the Immigration Reform and Control Act, or in connection with any claim of injury or damage caused by any of its agents or employees arising out of or in the course of their employment and work at or upon premises at which Work is being performed, which injury or damage is not caused by the negligent or willful act of a town agent, servant or employee. The Contractor's obligations under this section shall not be limited in any way by any limitation on the amount or type of the Contractor's insurance.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement. Counterparts have been delivered to Owner and Contractor. All portions of the Contract Documents have been signed or have been identified by Owner and Contractor or on their behalf.

This Agreement will be effective on	_ (which is the Effective Date of the Agreement).
OWNER:	CONTRACTOR
Town of Ellington	
By:	By:
Title:	Title:
	(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)
Attest:	Attest:
Title:	Title:
Address for giving notices:	Address for giving notices:
Finance Department	
55 Main Street	
Ellington, CT 06029	
	License No.:
(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)	Agent for service of process:

Notice to Proceed

Date: Project: Hall Memorial Library Parking Lot & Sidewalk Improvements Owner: Town of Ellington Owner's Contract No.: Contract: Hall Memorial Library Parking Lot & Sidewalk Engineer's Project No.: 2018-801 Contractor: Contractor's Address: You are notified that the Contract Times under the above Contract will commence to run on July 17, 2023. On or before that date, you are to start performing your obligations under the Contract Documents. In accordance with Article 4 of the Agreement, the date of Substantial Completion is October 15, 2023 and the date of readiness for final payment is June 1, 2023. Before you may start any Work at the Site, you must: Submit to the Engineer the preliminary schedules for review and approval in accordance 1. with Section 2.05 of the General Conditions. 2. Attend the pre-construction conference (tentatively scheduled for _____at the site). Given by: Owner's Representative: Timothy A. Coon, P.E. Signature:

Title:

Date:

Copy to Owner

Project Engineer

PERFORMANCE BOND

OWNER (Name and Address): Town of Ellington 55 Main Street Ellington, CT 06029 CONTRACT Effective Date of Agreement: Amount: Description (Name and Location): Hall Memorial Library Parking Lot & Sidewalk Improvements BOND Bond Number: Date (Not earlier than Effective Date of Agreement): Amount: Modifications to this Bond Form: Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause the Performance Bond to be duly executed by an authorized officer, agent, or representative. CONTRACTOR AS PRINCIPAL SURETY (Seal) Contractor's Name and Corporate Seal By: Signature By: Signature Print Name Print Name Print Name Title Attest: Signature Title Title Title Note: Provide execution by additional parties, such as joint venturers, if necessary.		CTOR (Name and Address):	SURETY (Name, and Address of Principal Place of Bu	siness)
CONTRACT Effective Date of Agreement: Amount: Description (Name and Location): Hall Memorial Library Parking Lot & Sidewalk Improvements BOND Bond Number: Date (Not earlier than Effective Date of Agreement): Amount: Modifications to this Bond Form: Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause the Performance Bond to be duly executed by an authorized officer, agent, or representative. CONTRACTOR AS PRINCIPAL SURETY Surety's Name and Corporate Seal By: Signature By: Signature Print Name Print Name Title Attest: Signature Title Title Title Title Title Title Title	Town 55 M	n of Ellington ain Street		
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Note: Provide execution by additional parties, such as joint venturers, if necessary.	Contract By:	Signature Print Name Title	(Seal)	Seal)
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	Contract By: Attest:	Signature Print Name Title Signature Title	Surety's Name and Corporate Seal By: Signature (Attach Power of Attorney) Print Name Title Attest: Signature Title	Seal)

EJCDC C-610 Performance Bond Prepared by the Engineers Joint Contract Documents Committee. $00610\text{--}1\ \text{of}\ 3$

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

- 1. If Contractor performs the Contract, Surety and Contractor have no obligation under this Bond, except to participate in conferences as provided in Paragraph 2.1.
- 2. If there is no Owner Default, Surety's obligation under this Bond shall arise after:
 - Owner has notified Contractor and Surety, at the addresses described in Paragraph 9 below, that Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with Contractor and Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If Owner, Contractor, and Surety agree, Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive Owner's right, if any, subsequently to declare a Contractor Default; and
 - 2.2 Owner has declared a Contractor Default and formally terminated Contractor's right to complete the Contract. Such Contractor Default shall not be declared earlier than 20 days after Contractor and Surety have received notice as provided in Paragraph 2.1; and
 - 2.3 Owner has agreed to pay the Balance of the Contract Price to:
 - 1. Surety in accordance with the terms of the Contract; or
 - 2. Another contractor selected pursuant to Paragraph 3.3 to perform the Contract.
- 3. When Owner has satisfied the conditions of Paragraph 2, Surety shall promptly, and at Surety's expense, take one of the following actions:
 - 3.1 Arrange for Contractor, with consent of Owner, to perform and complete the Contract; or
 - 3.2 Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
 - 3.3 Obtain bids or negotiated proposals from qualified contractors acceptable to Owner for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by Owner and contractor selected with Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Contract, and pay to Owner the amount of damages as described in Paragraph 5 in excess of the Balance of the Contract Price incurred by Owner resulting from Contractor Default; or
 - 3.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:
 - 1. After investigation, determine the amount for which it may be liable to Owner and, as soon as practicable after the amount is determined, tender payment therefor to Owner; or
 - 2. Deny liability in whole or in part and notify Owner citing reasons therefor.
- 4. If Surety does not proceed as provided in Paragraph 3 with reasonable promptness, Surety shall be deemed to be in default on this Bond 15 days after receipt of an additional written notice from Owner to Surety demanding that Surety perform its obligations under this Bond, and Owner shall be entitled to enforce any remedy available to Owner. If Surety proceeds as provided in Paragraph 3.4, and Owner refuses the payment tendered or Surety has denied liability, in whole or in part, without further notice Owner shall be entitled to enforce any remedy available to Owner.
- 5. After Owner has terminated Contractor's right to complete the Contract, and if Surety elects to act under Paragraph 3.1, 3.2, or 3.3 above, then the responsibilities of Surety to Owner shall not be greater than those of Contractor under the Contract, and the responsibilities of Owner to Surety shall not be greater than those of Owner under the Contract. To the limit of the amount of this Bond, but subject to commitment by Owner of the Balance of the Contract Price to mitigation of costs and damages on the Contract, Surety is obligated without duplication for:

- 5.1 The responsibilities of Contractor for correction of defective Work and completion of the Contract;
- 5.2 Additional legal, design professional, and delay costs resulting from Contractor's Default, and resulting from the actions of or failure to act of Surety under Paragraph 3; and
- 5.3 Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of Contractor.
- 6. Surety shall not be liable to Owner or others for obligations of Contractor that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than Owner or its heirs, executors, administrators, or successors.
- 7. Surety hereby waives notice of any change, including changes of time, to Contract or to related subcontracts, purchase orders, and other obligations.
- 8. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located, and shall be instituted within two years after Contractor Default or within two years after Contractor ceased working or within two years after Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
- 9. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the address shown on the signature page.
- 10. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

11. Definitions.

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

FOR INFORMATION ONLY – (*Name, Address and Telephone*) Surety Agency or Broker:

Owner's Representative: J.R. Russo & Associates, LLC, 1 Shoham Road, East Windsor, CT 06088 (860) 623-0569

PAYMENT BOND

OWNER (Name and Address): Town of Ellington 55 Main Street	
Ellington, CT 06029 CONTRACT Effective Date of Agreement: Amount: Description: Hall Memorial Library	Parking Lot & Sidewalk Improvements
BOND Bond Number: Date (Not earlier than Effective Date of Agreemen Amount: Modifications to this Bond Form:	
Surety and Contractor, intending to be legally bound he Payment Bond to be duly executed by an authorized of	ereby, subject to the terms set forth below, do each cause the ficer, agent, or representative.
CONTRACTOR AS PRINCIPAL	SURETY
(Seal)	()
Contractor's Name and Corporate Seal	Surety's Name and Corporate Seal
By: By:	Signature (Attach Power of Attorney)
Signature	Signature (Attach Fower of Attorney)
Print Name	Print Name
Title	Title
Attest: Atte	
Signature	Signature
Title	Title

EJCDC C-615(A) Payment Bond Prepared by the Engineers Joint Contract Documents Committee. 00615-1 of 3

- 1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner to pay for labor, materials, and equipment furnished by Claimants for use in the performance of the Contract, which is incorporated herein by reference.
- 2. With respect to Owner, this obligation shall be null and void if Contractor:
 - 2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants, and
 - 2.2 Defends, indemnifies, and holds harmless Owner from all claims, demands, liens, or suits alleging non-payment by Contractor by any person or entity who furnished labor, materials, or equipment for use in the performance of the Contract, provided Owner has promptly notified Contractor and Surety (at the addresses described in Paragraph 12) of any claims, demands, liens, or suits and tendered defense of such claims, demands, liens, or suits to Contractor and Surety, and provided there is no Owner Default.
- 3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly, for all sums due.
- 4. Surety shall have no obligation to Claimants under this Bond until:
 - 4.1 Claimants who are employed by or have a direct contract with Contractor have given notice to Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
 - 4.2 Claimants who do not have a direct contract with Contractor:
 - Have furnished written notice to Contractor and sent a copy, or notice thereof, to Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials or equipment were furnished or supplied, or for whom the labor was done or performed; and
 - 2. Have either received a rejection in whole or in part from Contractor, or not received within 30 days of furnishing the above notice any communication from Contractor by which Contractor had indicated the claim will be paid directly or indirectly; and
 - 3. Not having been paid within the above 30 days, have sent a written notice to Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to Contractor.
- 5. If a notice by a Claimant required by Paragraph 4 is provided by Owner to Contractor or to Surety, that is sufficient compliance.
- 6. Reserved.
- 7. Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by Surety.
- 8. Amounts owed by Owner to Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any performance bond. By Contractor furnishing and Owner accepting this Bond, they agree that all funds earned by Contractor in the performance of the Contract are dedicated to satisfy obligations of Contractor and Surety under this Bond, subject to Owner's priority to use the funds for the completion of the Work.
- 9. Surety shall not be liable to Owner, Claimants, or others for obligations of Contractor that are unrelated to the Contract. Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

- 10. Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders, and other obligations.
- 11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Paragraph 4.1 or Paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
- 12. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, Owner, or Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.
- 13. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory Bond and not as a common law bond.
- 14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

15. Definitions

- 15.1 Claimant: An individual or entity having a direct contract with Contractor, or with a first-tier subcontractor of Contractor, to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of Contractor and Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
- 15.2 Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.
- 15.3 Owner Default: Failure of Owner, which has neither been remedied nor waived, to pay Contractor as required by the Contract, or to perform and complete or otherwise comply with the other terms thereof.

FOR INFORMATION ONLY – (*Name*, *Address*, *and Telephone*)

Surety Agency or Broker:

Owner's Representative: J.R. Russo & Associates, LLC, 1 Shoham Road, East Windsor, CT 06088 (860) 623-0569

					_	
		Contractor's A	pplication fo	r Paym	ent No.	
		Application Period:		Application		
To (Owner):		From (Contractor):		Via (Engin	neer):	
Project:		Contract:				
Owner's Contract No.: Contractor's Project No.:				Engineer's	Project No.:	
	Application For Payment Change Order Summary					
Approved Change Orders			1. ORIGINAL CON	TRACT PRIC	E	\$
Number	Additions	Deductions	2. Net change by Cha	ange Orders		\$
			3. Current Contract	Price (Line 1 :	± 2)	\$
			4. TOTAL COMPLE	ETED AND ST	TORED TO DATE	
			(Column F on Pro	gress Estimato	e)	\$
			5. RETAINAGE:			
			a.	X	Work Completed	\$
			b.		Stored Material	
			c. Tot		Line 5a + Line 5b)	
			T		E (Line 4 - Line 5c)	
TOTALS			7		(Line 6 from prior Application)	
NET CHANGE BY					ATION	
CHANGE ORDERS			9. BALANCE TO FIT			·····
CHINOE ORDERO			-		e + Line 5 above)	\$
			(Column G on 110)	gi ess Estillate	E I Line 3 above)	
Contractor's Certification			T			
			Dovement of	•		
	tifies that to the best of its knowled on account of Work done under the		Payment of:	ъ	Line 8 or other - attach explanation o	f the other emerint)
account to discharge Contractor	's legitimate obligations incurred ir	connection with Work covered by		(1	Line 8 or other - attach explanation o	the other amount)
	(2) title of all Work, materials and					
Work or otherwise listed in or covered by this Application for Payment will pass to Owner at time of payment free and clear of all Liens, security interests and encumbrances (except such as are covered by a Bond acceptable to Owner indemnifying Owner against any such Liens, security interest or encumbrances); and (3) all Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.			is recommended by:	-	(F. '.)	
					(Engineer)	(Date)
			Payment of:	\$		
				(I	Line 8 or other - attach explanation o	t the other amount)
			is approved by:			
					(Owner)	(Date)
			1			
By:		Date:	Approved by:			

Endorsed by the Construction Specifications Institute.

Funding Agency (if applicable)

(Date)

Progress Estimate

Contractor's Application

For (contract):		Application Number:							
Application Period:				Application Date:					
A		В	Work Co	ompleted	Е	F		G	
Item			C	D	Materials Presently	Total Completed	%	Balance to Finish	
Specification Section No.	Description	Scheduled Value	From Previous Application (C+D)	This Period	Stored (not in C or D)	and Stored to Date $(C + D + E)$	(<u>F</u>) B	(B - F)	
	Totals								

Progress Estimate

Contractor's Application

For (contract):						Application Number:				
Application Period: Application Period:					Application Date:					
A				В	С	D	E	E F		
Bid Item No.	Item Description	Bid Quantity	Unit Price	Bid Value	Estimated Quantity Installed	Value	Materials Presently Stored (not in C)	Total Completed and Stored to Date (D+E)	% (F) B	Balance to Finish (B - F)
								-		
								 -		
								-		
								 - 		
								-		
								 - 		
								 - -		
	Totals									

Stored Material Summary

Contractor's Application

For (contract):					Application Number:				
Application Per	Application Period:					Application Date:			
A	В	С	I)		Е	F		G
			Stored P	reviously	Stored	this Month	Incorporated in Work		Materials Remaining
Invoice No.	Shop Drawing Transmittal No.	Materials Description	Date (Month/Year)	Amount (\$)	Amount (\$)	Subtotal	Date (Month/Year)	Amount (\$)	in Storage (\$) (D + E - F)
			(IVIOIIII) I cui)	(\$)	(\$)		(iviolitis i cui)	(Ψ)	(= = -)
		Totals							

Certificate of Substantial Completion

Project: Hall Memorial Library Parking Lot & Sidewalk Improven	nents
Owner: Ellington Department of Public Works	Owner's Contract No.:
Contract: Hall Memorial Library Parking Lot & Sidewalk Improvements	Engineer's Project No.: 2018-801
This Certificate of Substantial Completion applies to:	
• ••	specified portions of the Work:
Date of Substantial Completio	n
The Work to which this Certificate applies has been inspected by a Contractor, and Engineer, and found to be substantially complete. of the Project or portion thereof designated above is hereby commencement of applicable warranties required by the Contract I	The Date of Substantial Completion declared and is also the date of
The responsibilities between Owner and Contractor for securi heat, utilities, insurance and warranties shall be as provided in amended as follows:	- · · - · · · · · · · · · · · · · · · ·
☐ Amended Responsibilities ☐ Not Amended	
Owner's Amended Responsibilities:	
Contractor's Amended Responsibilities:	
The following documents are attached to and made part of this Cer	tificate:
The following documents are attached to and made part of this Cer	minute.
FICDC C-625 Cartificate of Substantial Comple	tion

	n acceptance of Work not in accordance with ractor's obligation to complete the Work in a	
Executed by Engineer	Date	
Accepted by Contractor	Date	
Accepted by Owner	Date	

SECTION 00700 STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

TABLE OF CONTENTS

		Page
Article 1 –	Definitions and Terminology	1
1.01	Defined Terms.	
1.02	Terminology	
Article 2 –	Preliminary Matters	6
2.01	Delivery of Bonds and Evidence of Insurance	6
2.02	Copies of Documents	6
2.03	Commencement of Contract Times; Notice to Proceed	6
2.04	Starting the Work	7
2.05	Before Starting Construction	
2.06	Preconstruction Conference; Designation of Authorized Representatives	7
2.07	Initial Acceptance of Schedules	7
Article 3 –	Contract Documents: Intent, Amending, Reuse	8
3.01	Intent	8
3.02	Reference Standards	8
3.03	Reporting and Resolving Discrepancies	8
3.04	Amending and Supplementing Contract Documents	9
3.05	Reuse of Documents	10
3.06	Electronic Data	10
Article 4 –	Availability of Lands; Subsurface and Physical Conditions; Hazardous Environment	ntal
C	onditions; Reference Points	10
4.01	Availability of Lands	10
4.02	Subsurface and Physical Conditions	11
4.03	Differing Subsurface or Physical Conditions	11
4.04	Underground Facilities	13
4.05	Reference Points	14
4.06	Hazardous Environmental Condition at Site	14
Article 5 –	Bonds and Insurance	16
5.01	Performance, Payment, and Other Bonds	16
5.02	Licensed Sureties and Insurers	
5.03	Certificates of Insurance	
5.04	Contractor's Insurance	
5.05	Owner's Liability Insurance	
5.06	Property Insurance	
5.07	Waiver of Rights	

5.08	Receipt and Application of Insurance Proceeds	21
5.09	Acceptance of Bonds and Insurance; Option to Replace	21
5.10	Partial Utilization, Acknowledgment of Property Insurer	21
Article 6 –	Contractor's Responsibilities	22
6.01	Supervision and Superintendence	
6.02	Labor; Working Hours	
6.03	Services, Materials, and Equipment	
6.04	Progress Schedule	
6.05	Substitutes and "Or-Equals"	
6.06	Concerning Subcontractors, Suppliers, and Others	
6.07	Patent Fees and Royalties	
6.08	Permits	27
6.09	Laws and Regulations	27
6.10	Taxes	28
6.11	Use of Site and Other Areas	28
6.12	Record Documents	29
6.13	Safety and Protection	29
6.14	Safety Representative	30
6.15	Hazard Communication Programs	30
6.16	Emergencies	30
6.17	Shop Drawings and Samples	30
6.18	Continuing the Work	32
6.19	Contractor's General Warranty and Guarantee	32
6.20	Indemnification	33
6.21	Delegation of Professional Design Services	34
Article 7 –	Other Work at the Site	34
7.01	Related Work at Site	
7.02	Coordination	
7.03	Legal Relationships	
Article 8 –	Owner's Responsibilities	36
8.01	Communications to Contractor.	
8.02	Replacement of Engineer	
8.03	Furnish Data	
8.04	Pay When Due	
8.05	Lands and Easements; Reports and Tests	
8.06	Insurance	
8.07	Change Orders.	
8.08	Inspections, Tests, and Approvals	
8.09	Limitations on Owner's Responsibilities	
8.10	Undisclosed Hazardous Environmental Condition	
8.11	Evidence of Financial Arrangements	
8.12	Compliance with Safety Program	
··	- · · · · · · · · · · · · · · · · · · ·	

Article 9 –	Engineer's Status During Construction	37
9.01	Owner's Representative	37
9.02	Visits to Site	37
9.03	Project Representative	38
9.04	Authorized Variations in Work	38
9.05	Rejecting Defective Work	38
9.06	Shop Drawings, Change Orders and Payments	38
9.07	Determinations for Unit Price Work	
9.08	Decisions on Requirements of Contract Documents and Acceptability of Work	39
9.09	Limitations on Engineer's Authority and Responsibilities	
9.10	Compliance with Safety Program.	
Article 10 -	- Changes in the Work; Claims	40
10.01	Authorized Changes in the Work	40
10.02	Unauthorized Changes in the Work	40
	Execution of Change Orders	
	Notification to Surety	
	Claims	
Article 11 -	- Cost of the Work; Allowances; Unit Price Work	42
11.01	Cost of the Work	42
11.02	Allowances	44
11.03	Unit Price Work	45
Article 12 -	- Change of Contract Price; Change of Contract Times	45
12.01	Change of Contract Price.	45
12.02	Change of Contract Times	47
12.03	Delays	47
Article 13 -	Tests and Inspections; Correction, Removal or Acceptance of Defective Work	48
13.01	Notice of Defects	48
13.02	Access to Work	48
13.03	Tests and Inspections	48
13.04	Uncovering Work	49
13.05	Owner May Stop the Work	49
13.06	Correction or Removal of Defective Work	49
13.07	Correction Period	50
13.08	Acceptance of Defective Work	51
	Owner May Correct Defective Work	
Article 14 -	- Payments to Contractor and Completion	52
	Schedule of Values	
14.02	Progress Payments	52
	Contractor's Warranty of Title	
	Substantial Completion	
	Partial Utilization	

14.06	Final Inspection	56
	Final Payment	
	Final Completion Delayed	
	Waiver of Claims	
Article 15 –	- Suspension of Work and Termination	58
15.01	Owner May Suspend Work	58
15.02	Owner May Terminate for Cause	58
15.03	Owner May Terminate For Convenience	59
	Contractor May Stop Work or Terminate	
Article 16 –	- Dispute Resolution	60
	Methods and Procedures	
Article 17 –	- Miscellaneous	61
17.01	Giving Notice	61
17.02	Computation of Times	61
	Cumulative Remedies	
17.04	Survival of Obligations	61
17.05	Controlling Law	61
	Headings	

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 Defined Terms

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

- 12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
- 13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
- 14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
- 15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
- 16. Cost of the Work—See Paragraph 11.01 for definition.
- 17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
- 18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
- 19. *Engineer*—The individual or entity named as such in the Agreement.
- 20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
- 21. General Requirements—Sections of Division 1 of the Specifications.
- 22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
- 23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
- 24. Laws and Regulations; Laws or Regulations—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
- 25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
- 26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

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

- 40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
- 41. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
- 42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
- 43. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
- 44. Substantial Completion—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.
- 45. Successful Bidder—The Bidder submitting a responsive Bid to whom Owner makes an award.
- 46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.
- 47. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.
- 48. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
- 49. *Unit Price Work*—Work to be paid for on the basis of unit prices.
- 50. Work—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
- 51. Work Change Directive—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an

addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 Terminology

- A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. Intent of Certain Terms or Adjectives:
 - 1. The Contract Documents include the terms "as allowed," "as approved," "as ordered," "as directed" or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. Day:

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

D. *Defective*:

- 1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).
- E. Furnish, Install, Perform, Provide:

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

ARTICLE 2 – PRELIMINARY MATTERS

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

2.02 Copies of Documents

- A. Owner shall furnish to Contractor up to five printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.
- 2.03 Commencement of Contract Times; Notice to Proceed
 - A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

2.04 *Starting the Work*

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

2.05 Before Starting Construction

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:
 - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents:
 - 2. a preliminary Schedule of Submittals; and
 - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 Preconstruction Conference; Designation of Authorized Representatives

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

2.07 Initial Acceptance of Schedules

- A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
 - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of

- the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefore.
- 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
- 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 Intent

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 Reference Standards

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

3.03 Reporting and Resolving Discrepancies

A. Reporting Discrepancies:

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

B. Resolving Discrepancies:

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

3.04 *Amending and Supplementing Contract Documents*

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

3. Engineer's written interpretation or clarification.

3.05 Reuse of Documents

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

3.06 Electronic Data

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

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

4.01 Availability of Lands

A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the

Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefore as provided in Paragraph 10.05.

- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 Subsurface and Physical Conditions

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

4.03 Differing Subsurface or Physical Conditions

- A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:
 - 1. is of such a nature as to establish that any "technical data" on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
 - 2. is of such a nature as to require a change in the Contract Documents; or
 - 3. differs materially from that shown or indicated in the Contract Documents; or

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

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

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

4.04 *Underground Facilities*

- A. Shown or Indicated: The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
 - 1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and
 - 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all such information and data;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents;
 - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and
 - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. Not Shown or Indicated:

- 1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- 2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefore as provided in Paragraph 10.05.

4.05 Reference Points

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

4.06 Hazardous Environmental Condition at Site

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

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

ARTICLE 5 – BONDS AND INSURANCE

5.01 Performance, Payment, and Other Bonds

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

5.02 Licensed Sureties and Insurers

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

5.03 Certificates of Insurance

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

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

5.04 Contractor's Insurance

- A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
 - 2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
 - 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
 - 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:
 - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
 - b. by any other person for any other reason;
 - 5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
 - 6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.
- B. The policies of insurance required by this Paragraph 5.04 shall:
 - 1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, members, partners,

- employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;
- 2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
- 3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
- 4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
- 5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
- 6. include completed operations coverage:
 - a. Such insurance shall remain in effect for two years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

5.05 Owner's Liability Insurance

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

5.06 *Property Insurance*

- A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
 - 1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of

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

- 2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.
- 3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
- 4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
- 5. allow for partial utilization of the Work by Owner;
- 6. include testing and startup; and
- 7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.
- B. Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.
- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.
- D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

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

5.07 Waiver of Rights

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for:
 - 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 - 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 Receipt and Application of Insurance Proceeds

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.
- B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 Acceptance of Bonds and Insurance; Option to Replace

A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 Partial Utilization, Acknowledgment of Property Insurer

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

ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES

6.01 Supervision and Superintendence

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

6.02 Labor; Working Hours

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

6.03 Services, Materials, and Equipment

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

6.04 Progress Schedule

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

6.05 Substitutes and "Or-Equals"

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.
 - 1. "Or-Equal" Items: If in Engineer's sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an "or-equal" item, in which case review and approval of the proposed item may, in Engineer's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and
 - 3) it has a proven record of performance and availability of responsive service.
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. Substitute Items:

- a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
- b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefore. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
- c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.
- d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - 1) shall certify that the proposed substitute item will:
 - a) perform adequately the functions and achieve the results called for by the general design,
 - b) be similar in substance to that specified, and
 - c) be suited to the same use as that specified;

2) will state:

- a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
- b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
- c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;

3) will identify:

- a) all variations of the proposed substitute item from that specified, and
- b) available engineering, sales, maintenance, repair, and replacement services; and
- 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.

- B. Substitute Construction Methods or Procedures: If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. *Engineer's Evaluation*: Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
- D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer's Cost Reimbursement*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- F. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.
- 6.06 Concerning Subcontractors, Suppliers, and Others
 - A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.
 - B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or

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

6.07 Patent Fees and Royalties

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

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

6.08 Permits

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

6.09 Laws and Regulations

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner

and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefore as provided in Paragraph 10.05.

6.10 *Taxes*

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

6.11 Use of Site and Other Areas

A. Limitation on Use of Site and Other Areas:

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

6.12 Record Documents

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

6.13 Safety and Protection

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts

any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

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

6.14 Safety Representative

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

6.15 Hazard Communication Programs

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

6.16 *Emergencies*

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

6.17 Shop Drawings and Samples

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

1. Shop Drawings:

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

2. Samples:

a. Submit number of Samples specified in the Specifications.

- b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.
- B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. Submittal Procedures:

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

D. Engineer's Review:

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

Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

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

E. Resubmittal Procedures:

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

6.18 *Continuing the Work*

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

6.19 Contractor's General Warranty and Guarantee

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 - 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 - 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 - 1. observations by Engineer;
 - 2. recommendation by Engineer or payment by Owner of any progress or final payment;

- 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
- 4. use or occupancy of the Work or any part thereof by Owner;
- 5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
- 6. any inspection, test, or approval by others; or
- 7. any correction of defective Work by Owner.

6.20 Indemnification

- A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 - 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 - 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

6.21 Delegation of Professional Design Services

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.
- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 – OTHER WORK AT THE SITE

7.01 Related Work at Site

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefore, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
 - 1. written notice thereof will be given to Contractor prior to starting any such other work; and
 - 2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefore as provided in Paragraph 10.05.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe

access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

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

7.02 Coordination

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

7.03 *Legal Relationships*

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

ARTICLE 8 – OWNER'S RESPONSIBILITIES

- 8.01 *Communications to Contractor*
 - A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.
- 8.02 Replacement of Engineer
 - A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.
- 8.03 Furnish Data
 - A. Owner shall promptly furnish the data required of Owner under the Contract Documents.
- 8.04 Pay When Due
 - A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.
- 8.05 Lands and Easements; Reports and Tests
 - A. Owner's duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.
- 8.06 Insurance
 - A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.
- 8.07 *Change Orders*
 - A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.
- 8.08 Inspections, Tests, and Approvals
 - A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.
- 8.09 Limitations on Owner's Responsibilities
 - A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws

and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 Undisclosed Hazardous Environmental Condition

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

8.11 Evidence of Financial Arrangements

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

8.12 *Compliance with Safety Program*

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

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

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

9.02 Visits to Site

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

9.03 Project Representative

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

9.04 Authorized Variations in Work

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

9.05 Rejecting Defective Work

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

9.06 Shop Drawings, Change Orders and Payments

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

9.07 Determinations for Unit Price Work

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

9.08 Decisions on Requirements of Contract Documents and Acceptability of Work

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.
- B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.
- D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 Limitations on Engineer's Authority and Responsibilities

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

- and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

9.10 Compliance with Safety Program

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

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

10.01 Authorized Changes in the Work

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

10.02 Unauthorized Changes in the Work

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

10.03 Execution of Change Orders

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:
 - 1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
 - changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
 - 3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of

executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 *Notification to Surety*

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

10.05 *Claims*

- A. *Engineer's Decision Required*: All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).
- C. *Engineer's Action*: Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
 - 1. deny the Claim in whole or in part;
 - 2. approve the Claim; or
 - 3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.

- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

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

11.01 *Cost of the Work*

- A. Costs Included: The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:
 - 1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
 - 2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
 - 3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.

- 4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
- 5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
 - g. The cost of utilities, fuel, and sanitary facilities at the Site.
 - h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.
 - i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.
- B. Costs Excluded: The term Cost of the Work shall not include any of the following items:

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.
- C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.
- D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. Cash Allowances:
 - 1. Contractor agrees that:
 - a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of
 materials and equipment required by the allowances to be delivered at the Site, and all
 applicable taxes; and
 - b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in

the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. Contingency Allowance:

- 1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 Unit Price Work

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

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

12.01 Change of Contract Price

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

- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
 - 1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
 - 2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
 - 3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).
- C. Contractor's Fee: The Contractor's fee for overhead and profit shall be determined as follows:
 - 1. a mutually acceptable fixed fee; or
 - 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
 - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
 - f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 Change of Contract Times

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

12.03 *Delays*

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

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

13.01 Notice of Defects

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

13.02 Access to Work

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

13.03 Tests and Inspections

- A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
 - 1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
 - 2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and
 - 3. as otherwise specifically provided in the Contract Documents.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.

- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 Uncovering Work

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

13.05 Owner May Stop the Work

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

13.06 Correction or Removal of Defective Work

A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers,

- architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).
- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 Correction Period

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

13.08 Acceptance of Defective Work

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

13.09 Owner May Correct Defective Work

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

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

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 Schedule of Values

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

14.02 *Progress Payments*

A. Applications for Payments:

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

B. Review of Applications:

- 1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
- 2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's

review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

- a. the Work has progressed to the point indicated;
- b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and
- c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
- 3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
- 4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
- 5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
- b. the Contract Price has been reduced by Change Orders;
- c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
- d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. Payment Becomes Due:

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

D. Reduction in Payment:

- 1. Owner may refuse to make payment of the full amount recommended by Engineer because:
 - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
 - b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - c. there are other items entitling Owner to a set-off against the amount recommended; or
 - d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
- 2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.
- 3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

14.03 Contractor's Warranty of Title

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

14.04 Substantial Completion

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefore.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to Owner, notify Contractor in writing, stating the reasons therefore. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.
- E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

14.05 Partial Utilization

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

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

14.06 Final Inspection

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

14.07 Final Payment

A. Application for Payment:

- 1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.
- 2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;
 - b. consent of the surety, if any, to final payment;
 - c. a list of all Claims against Owner that Contractor believes are unsettled; and

- d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
- 3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. Engineer's Review of Application and Acceptance:

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

C. Payment Becomes Due:

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

14.08 Final Completion Delayed

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

14.09 Waiver of Claims

- A. The making and acceptance of final payment will constitute:
 - 1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
 - 2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 Owner May Suspend Work

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

15.02 Owner May Terminate for Cause

- A. The occurrence of any one or more of the following events will justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
 - 2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
 - 3. Contractor's repeated disregard of the authority of Engineer; or
 - 4. Contractor's violation in any substantial way of any provisions of the Contract Documents.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:
 - 1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);

- 2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and
- 3. complete the Work as Owner may deem expedient.
- C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.
- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
- E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.
- F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

15.03 Owner May Terminate For Convenience

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 - completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
 - 3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other

dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

- 4. reasonable expenses directly attributable to termination.
- B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 Contractor May Stop Work or Terminate

- A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 – DISPUTE RESOLUTION

16.01 Methods and Procedures

- A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.
- B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.
- C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:
 - 1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or

- 2. agrees with the other party to submit the Claim to another dispute resolution process; or
- 3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 – MISCELLANEOUS

17.01 Giving Notice

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
 - 1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
 - 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 Computation of Times

A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 Cumulative Remedies

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

17.04 Survival of Obligations

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

17.05 Controlling Law

A. This Contract is to be governed by the law of the state in which the Project is located.

17.06 *Headings*

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

SECTION 00800 SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (No. C-700, 2007 Edition) and other provisions of the Contract Documents as indicated below. All provisions that are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions will have the meanings indicated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

TABLE OF CONTENTS

		Page
SC-1.01.A.3	Application for Payment	1
SC-1.01.A.9	Change Order	1
SC-4.02	Subsurface and Physical Conditions	1
SC-4.06	Hazardous Environmental Condition at Site	1
SC-5.04	Contractor's Liability Insurance	2
SC-6.05.C	Substitutes and "Or-Equals", Engineer's Evaluation	3
SC-6.06	Concerning Subcontractors, Suppliers, and Others	4
SC-6.10	Taxes	4
SC-13.07.B	Correction Period	4
SC-13.09.C	Owner May Correct Defective Work	4
SC-14.02.A.3	Retainage	5
SC-14.02.A.4	Applications for Payment	5
SC-14.02.D.3	Reduction in Payment	5
SC-16.01.C.1	Dispute Resolution Methods and Procedures	5

SC-1.01.A.3. Add the following language to the end of Paragraph 1.01.A.3:

The Application for Payment form to be used on this Project is EJCDC No. C-620.

SC-1.01.A.9. Add the following language to the end of Paragraph 1.01.A.9:

The Change Order form to be used on this Project is EJCDC No. C-941.

SC-4.02. Delete Paragraphs 4.02.A and 4.02.B in their entirety and insert the following:

A. No reports or explorations or tests of subsurface conditions at or contiguous to the Site, or drawings of physical conditions relating to existing surface or subsurface structures at the Site, are known to the Owner or Engineer.

SC-4.06. Delete Paragraphs 4.06.A and 4.06.B in their entirety and insert the following:

- A. No reports or drawings of Hazardous Environmental Conditions at or contiguous to the Site are known to the Owner or Engineer.
- B. Not used.

SC-5.04. Add the following new paragraph immediately after Paragraph 5.04.B:

- C. The limits of liability for insurance required by Paragraph 5.04 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:
 - 1. Workers' Compensation, and related coverages under Paragraphs 5.04.A.1 and A.2 of the General Conditions:

a. State: Statutory

b. Applicable Federal

(e.g., Longshoremen's) Statutory c. Employer's Liability \$500,000

2. Contractor's General Liability under Paragraphs 5.04.A.3 through A.6 of the General Conditions which shall include completed operations and product liability coverages and eliminate the exclusion with respect to property under the care, custody, and control of the Contractor:

a. General Aggregate \$2,000,000

b. Products - Completed

Operations Aggregate \$ 2,000,000

c. Personal and Advertising

Injury \$ 1,000,000

d. Each Occurrence

(Bodily Injury and

Property Damage) \$1,000,000

e. Property Damage liability

insurance will provide

Explosion, Collapse, and

Underground coverages where

applicable. \$ 1,000,000

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

a. Bodily Injury:

Each Person \$ 1,000,000 Each Accident \$ 1,000,000

b. Property Damage:

Each Accident \$1,000,000

c. Combined Single Limit of \$2,000,000

4. The Contractual Liability coverage required by paragraph 5.04.B.4 of the General Conditions shall provide coverage for not less than the following amounts:

a. Bodily Injury:

Each Person \$ 2,000,000 Each Accident \$ 2,000,000

b. Property Damage:

Each Accident \$ 2,000,000 Annual Aggregate \$ 2,000,000

5. The following entities shall be included on the policy as additional insureds:

Town of Ellington 55 Main Street Ellington, CT 06029

Ellington Department of Public Works 21 Main Street Ellington, CT 06029

J.R. Russo & Associates, LLC 1 Shoham Road East Windsor, CT 06088

SC-6.05.C. Amend the paragraph by making two subparagraphs under the title C. Engineer's Evaluation. The paragraph text is retitled, 6.05.C.2 After Effective Date of Agreement. A new paragraph is added before this paragraph to read as follows:

During Bidding. The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, or "or-equal" materials and equipment as defined in paragraph 6.05 of the General Conditions, or those substitute materials and equipment approved by the Engineer and identified by Addendum. The materials and equipment described in the Bidding Documents establish a standard of required type, function, and quality to be met by any proposed substitute or "or-equal" item. Request for Engineer's clarification of materials and equipment considered "or-equal" prior to the Effective Date of the Agreement must be received by the Engineer at least 5 days prior to the date for receipt of Bids. No item of material or equipment will be considered by Engineer as a substitute unless written request for approval has been submitted by Bidder and has been received by Engineer at least 15 days prior to the date for receipt of Bids. Each request shall conform to the requirements of Paragraph 6.05 of the General Conditions. The burden of proof of the merit of the proposed item is upon the Bidder. Engineer's decision of approval or disapproval of a proposed item will be final. If Engineer approves any proposed substitute

item, such approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other manner.

SC-6.06 Add a new paragraph immediately after Paragraph 6.06.G:

The Contractor shall not award work valued at more than fifty (50%) percent of the Contract Price to Subcontractor(s), without prior written approval of the Owner.

SC-6.10. Add a new paragraph immediately after Paragraph 6.10.A:

- B. Owner is exempt from payment of sales and compensating use taxes of the State of Connecticut and of cities and counties thereof on all materials to be incorporated into the Work.
 - 1. Owner will furnish the required certificates of tax exemption to Contractor for use in the purchase of supplies and materials to be incorporated into the Work.
 - 2. Owner's exemption does not apply to construction tools, machinery, equipment, or other property purchased by or leased by Contractor, or to supplies or materials not incorporated into the Work.

SC-13.07.B Amend paragraph 13.07.B to read as follows:

If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs **and costs of collection**) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.

SC-13.09.C Amend paragraph 13.09.C to read as follows:

All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs **and costs of collection**) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefore as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs

of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

SC-14.02.A.3. Add the following language at the end of paragraph 14.02.A.3:

No payments will be made that would deplete the retainage, place in escrow any funds that are required for retainage, or invest the retainage for the benefit of the Contractor.

SC-14.02.A.4. Add the following new Paragraph after Paragraph 14.02.A.3:

The Application for Payment form to be used on this Project is EJCDC No. C-620.

SC-14.02.D.3 Delete paragraph 14.02.D.3 in its entirety and insert the following:

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

SC-16.01.C.1. Delete Paragraph 16.01.C.1 in its entirety and insert the following:

1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions or in the Agreement; or

Change Order

				No
Date of Issuance:		Effective Date:		
Project:	Owner:		Owner's Contract N	0.:
Contract:			Date of Contract:	
Contractor:			Engineer's Project N	Jo.:
The Contract Documents are mo	dified as foll	ows upon execution	n of this Change Or	der:
Description:				
Attachments (list documents sup	porting char	nge):		
CHANGE IN CONTRACT	CHANGE IN CONTRACT TIMES:			
Original Contract Price: \$		Substantial comp	Times: Working Workin	
[Increase] [Decrease] from previou approved Change Orders No.	-	[Increase] [Decrea	-	approved Change Orders
\$			oletion (days): oayment (days):	
Contract Price prior to this Change	Order:	Substantial com	ior to this Change Or oletion (days or date) payment (days or dat):
[Increase] [Decrease] of this Chang		[Increase] [Decrea Substantial com	se] of this Change O oletion (days or date) oayment (days or dat	rder:):
\$	hange	Contract Times wi Substantial comp	th all approved Char pletion (days or date) payment (days or dat	nge Orders:):
RECOMMENDED:		EPTED:	ACCEP	
By: Engineer (Authorized Signature) Date: Approved by Funding Agency (if a	Date:	wner (Authorized Signat	ure) Con	tractor (Authorized Signature)

Date: _

Change Order

Instructions

A. GENERAL INFORMATION

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

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

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

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

B. COMPLETING THE CHANGE ORDER FORM

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

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

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

Construction Contracts - Required Contract Provisions(State Funded Only Contracts)

Index

- 1. Specific Equal Employment Opportunity Responsibilities
- 2. Contract Wage Rates
- 3. Americans with Disabilities Act of 1990, as Amended
- 4. Connecticut Statutory Labor Requirements
 - a. Construction, Alteration or Repair of Public Works Projects; Wage Rates
 - b. Debarment List Limitation on Awarding Contracts
 - c. Construction Safety and Health Course
 - d. Awarding of Contracts to Occupational Safety and Health Law Violators Prohibited
 - e. Residents Preference in Work on Other Public Facilities (Not Applicable to Federal Aid Contracts)
- 5. Tax Liability Contractor's Exempt Purchase Certificate (CERT 141)
- 6. Executive Orders (State of CT)
- 7. Non Discrimination Requirement and Certification (pursuant to section 4a-60 and 4a-60a of the Connecticut General Statutes, as revised)
- 8. Whistleblower Provision
- 9. Connecticut Freedom of Information Act
 - a. Disclosure of Records
 - b. Confidential Information
- 10. Service of Process
- 11. Substitution of Securities for Retainages on State Contracts and Subcontracts
- 12. Health Insurance Portability and Accountability Act of 1996 (HIPAA)
- 13. Forum and Choice of Law
- 14. Summary of State Ethics Laws
- 15. Audit and Inspection of Plants, Places of Business and Records
- 16. Campaign Contribution Restriction
- 17. Tangible Personal Property

- 18. Bid Rigging and/or Fraud Notice to Contractor
- 19. Consulting Agreements Representation
- 20. Sovereign Immunity
- 21. Large State Contract Representation for Contractor
- 22. Large State Contract Representation for Official or Employee of State Agency
- 23. Iran Investment Energy Certification
- 24. Access to Contract and State Data
- 25. Affirmative Action Policy Statement

Index of Exhibits

EXHIBIT A – Specific Equal Employment Opportunity Responsibilities (page 14)

EXHIBIT B – Affirmative Action Policy Statement (page 22)

EXHIBIT C – Health Insurance Portability and Accountability Act of 1996 (HIPAA) (page 26)

EXHIBIT D - State Wage Rates and Other Related Information (page 34)

1. Specific Equal Employment Opportunity Responsibilities

The Contractor shall comply with the Specific Equal Employment Opportunity requirements, as applicable, attached at Exhibit A and hereby made part of this Contract.

2. Contract Wage Rates

The Contractor shall comply with:

The State wage rate requirements indicated in Exhibit D hereof are hereby made part of this Contract.

Prevailing Wages for Work on State Highways; Annual Adjustments. With respect to contracts for work on state highways and bridges on state highways, the Contractor shall comply with the provisions of Section 31-54 and 31-55a of the Connecticut General Statutes, as revised.

As required by section 1.05.12 (Payrolls) of the State of Connecticut, Department of Transportation's Standard Specification for Roads, Bridges and Incidental Construction (FORM 818), as may be revised, every Contractor or subcontractor performing project work on a federal aid project is required to post the relevant prevailing wage rates as determined by the United States Secretary of Labor. The wage rate determinations shall be posted in prominent and easily accessible places at the work site.

3. Americans with Disabilities Act of 1990, as Amended

This provision applies to those Contractors who are or will be responsible for compliance with the terms of the Americans with Disabilities Act of 1990, as amended (42 U.S.C. 12101 et seq.), (Act), during the term of the Contract. The Contractor represents that it is familiar with the terms of this Act and that it is in compliance with the Act. Failure of the Contractor to satisfy this standard as the same applies to performance under this Contract, either now or during the term of the Contract as it may be amended, will render the Contract voidable at the option of the State upon notice to the contractor. The Contractor warrants that it will hold the State harmless and indemnify the State from any liability which may be imposed upon the State as a result of any failure of the Contractor to be in compliance with this Act, as the same applies to performance under this Contract.

4. Connecticut Statutory Labor Requirements

- (a) Construction, Alteration or Repair of Public Works Projects; Wage Rates. The Contractor shall comply with Section 31-53 of the Connecticut General Statutes, as revised. The wages paid on an hourly basis to any person performing the work of any mechanic, laborer or worker on the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such person to any employee welfare fund, as defined in subsection (i) of section 31-53 of the Connecticut General Statutes, shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such persons to any such employee welfare fund shall pay to each mechanic, laborer or worker as part of such person's wages the amount of payment or contribution for such person's classification on each pay day.
- **(b) Debarment List. Limitation on Awarding Contracts.** The Contractor shall comply with Section 31-53a of the Connecticut General Statutes, as revised.

(c) Construction Safety and Health Course. The Contractor shall comply with section 31-53b of the Connecticut General Statutes, as revised. The contractor shall furnish proof to the Labor Commissioner with the weekly certified payroll form for the first week each employee begins work on such project that any person performing the work of a mechanic, laborer or worker pursuant to the classifications of labor under section 31-53 of the Connecticut General Statutes, as revised, on such public works project, pursuant to such contract, has completed a course of at least ten hours in duration in construction safety and health approved by the federal Occupational Safety and Health Administration or, has completed a new miner training program approved by the Federal Mine Safety and Health Administration in accordance with 30 CFR 48 or, in the case of telecommunications employees, has completed at least ten hours of training in accordance with 29 CFR 1910.268.

Any employee required to complete a construction safety and health course as required that has not completed the course, shall have a maximum of fourteen (14) days to complete the course. If the employee has not been brought into compliance, they shall be removed from the project until such time as they have completed the required training.

Any costs associated with this notice shall be included in the general cost of the contract. In addition, there shall be no time granted to the contractor for compliance with this notice. The contractor's compliance with this notice and any associated regulations shall not be grounds for claims as outlined in Section 1.11 – "Claims".

- (d) Awarding of Contracts to Occupational Safety and Health Law Violators Prohibited. The Contract is subject to Section 31-57b of the Connecticut General Statutes, as revised.
- (e) Residents Preference in Work on Other Public Facilities. NOT APPLICABLE TO FEDERAL AID CONTRACTS. Pursuant to Section 31-52a of the Connecticut General Statutes, as revised, in the employment of mechanics, laborers or workmen to perform the work specified herein, preference shall be given to residents of the state who are, and continuously for at least six months prior to the date hereof have been, residents of this state, and if no such person is available, then to residents of other states

5. Tax Liability - Contractor's Exempt Purchase Certificate (CERT – 141)

The Contractor shall comply with Chapter 219 of the Connecticut General Statutes pertaining to tangible personal property or services rendered that is/are subject to sales tax. The Contractor is responsible for determining its tax liability. If the Contractor purchases materials or supplies pursuant to the Connecticut Department of Revenue Services' "Contractor's Exempt Purchase Certificate (CERT-141)," as may be revised, the Contractor acknowledges and agrees that title to such materials and supplies installed or placed in the project will vest in the State simultaneously with passage of title from the retailers or vendors thereof, and the Contractor will have no property rights in the materials and supplies purchased.

Forms and instructions are available anytime by:

Internet: Visit the DRS website at www.ct.gov/DRS to download and print Connecticut tax forms; or Telephone: Call 1-800-382-9463 (Connecticut calls outside the Greater Hartford calling area only) and select Option 2 or call 860-297-4753 (from anywhere).

6. Executive Orders and Other Enactments

- (a) All references in this Contract to any Federal, State, or local law, statute, public or special act, executive order, ordinance, regulation or code (collectively, "Enactments") shall mean Enactments that apply to the Contract at any time during its term, or that may be made applicable to the Contract during its term. This Contract shall always be read and interpreted in accordance with the latest applicable wording and requirements of the Enactments. Unless otherwise provided by Enactments, the Contractor is not relieved of its obligation to perform under this Contract if it chooses to contest the applicability of the Enactments or the Client Agency's authority to require compliance with the Enactments.
- (b) This Contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill, promulgated June 16, 1971, concerning labor employment practices, Executive Order No. Seventeen of Governor Thomas J. Meskill, promulgated February 15, 1973, concerning the listing of employment openings and Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999, concerning violence in the workplace, all of which are incorporated into and are made a part of this Contract as if they had been fully set forth in it.
- (c) This Contract may be subject to (1) Executive Order No. 14 of Governor M. Jodi Rell, promulgated April 17, 2006, concerning procurement of cleaning products and services; and (2) Executive Order No. 61 of Governor Dannel P. Malloy promulgated December 13, 2017 concerning the Policy for the Management of State Information Technology Projects, as issued by the Office of Policy and Management, Policy ID IT-SDLC-17-04. If any of the Executive Orders referenced in this subsection is applicable, it is deemed to be incorporated into and made a part of this Contract as if fully set forth in it.

7. NonDiscrimination

- (a) For purposes of this Section, the following terms are defined as follows:
 - i. "Commission" means the Commission on Human Rights and Opportunities;
 - ii. "Contract" and "contract" include any extension or modification of the Contract or contract;
 - iii. "Contractor" and "contractor" include any successors or assigns of the Contractor or contractor;
 - iv. "Gender identity or expression" means a person's gender-related identity, appearance or behavior, whether or not that gender-related identity, appearance or behavior is different from that traditionally associated with the person's physiology or assigned sex at birth, which gender-related identity can be shown by providing evidence including, but not limited to, medical history, care or treatment of the gender-related identity, consistent and uniform assertion of the gender-related identity or any other evidence that the gender-related identity is sincerely held, part of a person's core identity or not being asserted for an improper purpose;
 - v. "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations;
 - vi. "good faith efforts" shall include, but not be limited to, those reasonable initial efforts necessary to comply with statutory or regulatory requirements and additional or substituted efforts when it is determined that such initial efforts will not be sufficient to comply with such requirements;
 - vii. "marital status" means being single, married as recognized by the state of Connecticut, widowed, separated or divorced;

- viii. "mental disability" means one or more mental disorders, as defined in the most recent edition of the American Psychiatric Association's "Diagnostic and Statistical Manual of Mental Disorders", or a record of or regarding a person as having one or more such disorders;
- ix. "minority business enterprise" means any small contractor or supplier of materials fiftyone percent or more of the capital stock, if any, or assets of which is owned by a person or
 persons: (1) who are active in the daily affairs of the enterprise, (2) who have the power
 to direct the management and policies of the enterprise, and (3) who are members of a
 minority, as such term is defined in subsection (a) of Connecticut General Statutes § 329n; and
- x. "public works contract" means any agreement between any individual, firm or corporation and the State or any political subdivision of the State other than a municipality for construction, rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, or which is financed in whole or in part by the State, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees.

For purposes of this Section, the terms "Contract" and "contract" do not include a contract where each contractor is (1) a political subdivision of the state, including, but not limited to, a municipality, unless the contract is a municipal public works contract or quasi-public agency project contract, (2) any other state, including but not limited to any federally recognized Indian tribal governments, as defined in C.G.S. § 1-267, (3) the federal government, (4) a foreign government, or (5) an agency of a subdivision, state or government described in the immediately preceding enumerated items (1), (2), (3),or (4).

(b) (1) The Contractor agrees and warrants that in the performance of the Contract such Contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, status as a veteran, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such Contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the State of Connecticut; and the Contractor further agrees to take affirmative action to ensure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, status as a veteran, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by the Contractor that such disability prevents performance of the work involved; (2) the Contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the Commission; (3) the Contractor agrees to provide each labor union or representative of workers with which the Contractor has a collective bargaining Agreement or other contract or understanding and each vendor with which the Contractor has a contract or understanding, a notice to be provided by the Commission, advising the labor union or workers' representative of the Contractor's commitments under this section and to post copies of the notice in conspicuous places available to employees and applicants for employment; (4) the Contractor agrees to comply with each provision of this Section and Connecticut General Statutes §§ 46a-68e and 46a-68f and with each regulation or relevant order issued by said Commission pursuant to Connecticut General Statutes §§ 46a-56, 46a-68e and 46a-68f; and (5) the Contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the Commission, and

permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the Contractor as relate to the provisions of this Section and Connecticut General Statutes § 46a-56. If the contract is a public works contract, the Contractor agrees and warrants that he will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works projects.

- (c) Determination of the Contractor's good faith efforts shall include, but shall not be limited to, the following factors: The Contractor's employment and subcontracting policies, patterns and practices; affirmative advertising, recruitment and training; technical assistance activities and such other reasonable activities or efforts as the Commission may prescribe that are designed to ensure the participation of minority business enterprises in public works projects.
- (d) The Contractor shall develop and maintain adequate documentation, in a manner prescribed by the Commission, of its good faith efforts.
- (e) The Contractor shall include the provisions of subsection (b) of this Section in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the State and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the Commission. The Contractor shall take such action with respect to any such subcontract or purchase order as the Commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with Connecticut General Statutes §46a-56; provided if such Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Commission, the Contractor may request the State of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the State and the State may so enter.
- (f) The Contractor agrees to comply with the regulations referred to in this Section as they exist on the date of this Contract and as they may be adopted or amended from time to time during the term of this Contract and any amendments thereto.
- (g) (1) The Contractor agrees and warrants that in the performance of the Contract such Contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of sexual orientation, in any manner prohibited by the laws of the United States or the State of Connecticut, and that employees are treated when employed without regard to their sexual orientation; (2) the Contractor agrees to provide each labor union or representative of workers with which such Contractor has a collective bargaining Agreement or other contract or understanding and each vendor with which such Contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the Contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment; (3) the Contractor agrees to comply with each provision of this section and with each regulation or relevant order issued by said Commission pursuant to Connecticut General Statutes § 46a-56; and (4) the Contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the Commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the Contractor which relate to the provisions of this Section and Connecticut General Statutes § 46a-56.
- (h) The Contractor shall include the provisions of the foregoing paragraph in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the State and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by

regulations or orders of the Commission. The Contractor shall take such action with respect to any such subcontract or purchase order as the Commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with Connecticut General Statutes § 46a-56; provided, if such Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Commission, the Contractor may request the State of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the State and the State may so enter.

(i) Pursuant to subsection (c) of section 4a-60 and subsection (b) of section 4a-60a of the Connecticut General Statutes, the Contractor, for itself and its authorized signatory of this Contract, affirms that it understands the obligations of this section and that it will maintain a policy for the duration of the Contract to assure that the Contract will be performed in compliance with the nondiscrimination requirements of such sections. The Contractor and its authorized signatory of this Contract demonstrate their understanding of this obligation by (A) having provided an affirmative response in the required online bid or response to a proposal question which asks if the contractor understands its obligations under such sections, (B) signing this Contract, or (C) initialing this nondiscrimination affirmation in the following box:

8. Whistleblower Provision

The following clause is applicable if the Contract has a value of Five Million Dollars (\$5,000,000) or more.

Whistleblowing. This Contract may be subject to the provisions of Section 4-61dd of the Connecticut General Statutes. In accordance with this statute, if an officer, employee or appointing authority of the Contractor takes or threatens to take any personnel action against any employee of the Contractor in retaliation for such employee's disclosure of information to any employee of the contracting state or quasi-public agency or the Auditors of Public Accounts or the Attorney General under the provisions of subsection (a) of such statute, the Contractor shall be liable for a civil penalty of not more than five thousand dollars for each offense, up to a maximum of twenty per cent of the value of this Contract. Each violation shall be a separate and distinct offense and in the case of a continuing violation, each calendar day's continuance of the violation shall be deemed to be a separate and distinct offense. The State may request that the Attorney General bring a civil action in the Superior Court for the Judicial District of Hartford to seek imposition and recovery of such civil penalty. In accordance with subsection (f) of such statute, each large state contractor, as defined in the statute, shall post a notice of the provisions of the statute relating to large state contractors in a conspicuous place which is readily available for viewing by the employees of the Contractor.

9. Connecticut Freedom of Information Act

(a) Disclosure of Records. This Contract may be subject to the provisions of section 1-218 of the Connecticut General Statutes. In accordance with this statute, each contract in excess of two million five hundred thousand dollars between a public agency and a person for the performance of a governmental function shall (a) provide that the public agency is entitled to receive a copy of records and files related to the performance of the governmental function, and (b) indicate that such records and files are subject to FOIA and may be disclosed by the public agency pursuant to FOIA. No request to inspect or copy such records or files shall be valid unless the request is made to the public agency in accordance with FOIA. Any complaint by a person who is denied the right to inspect or copy such records or files shall be brought to the Freedom of Information Commission in accordance with the provisions of sections 1-205 and 1-206 of the Connecticut General Statutes.

(b) Confidential Information. The State will afford due regard to the Contractor's request for the protection of proprietary or confidential information which the State receives from the Contractor. However, all materials associated with the Contract are subject to the terms of the FOIA and all corresponding rules, regulations and interpretations. In making such a request, the Contractor may not merely state generally that the materials are proprietary or confidential in nature and not, therefore, subject to release to third parties. Those particular sentences, paragraphs, pages or sections that the Contractor believes are exempt from disclosure under the FOIA must be specifically identified as such. Convincing explanation and rationale sufficient to justify each exemption consistent with the FOIA must accompany the request. The rationale and explanation must be stated in terms of the prospective harm to the competitive position of the Contractor that would result if the identified material were to be released and the reasons why the materials are legally exempt from release pursuant to the FOIA. To the extent that any other provision or part of the Contract conflicts or is in any way inconsistent with this section, this section controls and shall apply and the conflicting provision or part shall not be given effect. If the Contractor indicates that certain documentation is submitted in confidence, by specifically and clearly marking the documentation as "CONFIDENTIAL," DOT will first review the Contractor's claim for consistency with the FOIA (that is, review that the documentation is actually a trade secret or commercial or financial information and not required by statute), and if determined to be consistent, will endeavor to keep such information confidential to the extent permitted by law. See, e.g., Conn. Gen. Stat. §1-210(b)(5)(A-B). The State, however, has no obligation to initiate, prosecute or defend any legal proceeding or to seek a protective order or other similar relief to prevent disclosure of any information that is sought pursuant to a FOIA request. Should the State withhold such documentation from a Freedom of Information requester and a complaint be brought to the Freedom of Information Commission, the Contractor shall have the burden of cooperating with DOT in defense of that action and in terms of establishing the availability of any FOIA exemption in any proceeding where it is an issue. In no event shall the State have any liability for the disclosure of any documents or information in its possession which the State believes are required to be disclosed pursuant to the FOIA or other law.

10. Service of Process

The Contractor, if not a resident of the State of Connecticut, or, in the case of a partnership, the partners, if not residents, hereby appoints the Secretary of State of the State of Connecticut, and his successors in office, as agent for service of process for any action arising out of or as a result of this Contract; such appointment to be in effect throughout the life of this Contract and six (6) years thereafter.

11. Substitution of Securities for Retainages on State Contracts and Subcontracts

This Contract is subject to the provisions of Section 3-ll2a of the General Statutes of the State of Connecticut, as revised.

12. Health Insurance Portability and Accountability Act of 1996 (HIPAA)

The Contractor shall comply, if applicable, with the Health Insurance Portability and Accountability Act of 1996 and, pursuant thereto, the provisions attached at Exhibit B, and hereby made part of this Contract.

13. Forum and Choice of Law

Forum and Choice of Law. The parties deem the Contract to have been made in the City of Hartford, State of Connecticut. Both parties agree that it is fair and reasonable for the validity and construction of the Contract to be, and it shall be, governed by the laws and court decisions of the State of Connecticut, without giving effect to its principles of conflicts of laws. To the extent that any immunities provided by Federal law or the laws of the State of Connecticut do not bar an action against the State, and to the extent that these courts are courts of competent jurisdiction, for the purpose of venue, the complaint shall be made returnable to the Judicial District of Hartford only or shall be brought in the United States District Court for the District of Connecticut only, and shall not be transferred to any other court, provided, however, that nothing here constitutes a waiver or compromise of the sovereign immunity of the State of Connecticut. The Contractor waives any objection which it may now have or will have to the laying of venue of any Claims in any forum and further irrevocably submits to such jurisdiction in any suit, action or proceeding.

14. Summary of State Ethics Laws

Pursuant to the requirements of section 1-101qq of the Connecticut General Statutes (a) the State has provided to the Contractor the summary of State ethics laws developed by the State Ethics Commission pursuant to section 1-81b of the Connecticut General Statutes, which summary is incorporated by reference into and made a part of this Contract as if the summary had been fully set forth in this Contract; (b) the Contractor represents that the chief executive officer or authorized signatory of the Contract and all key employees of such officer or signatory have read and understood the summary and agree to comply with the provisions of state ethics law; (c) prior to entering into a contract with any subcontractors or consultants, the Contractor shall provide the summary to all subcontractors and consultants and each such contract entered into with a subcontractor or consultant on or after July 1, 2021, shall include a representation that each subcontractor or consultant and the key employees of such subcontractor or consultant have read and understood the summary and agree to comply with the provisions of state ethics law; (d) failure to include such representations in such contracts with subcontractors or consultants shall be cause for termination of the Contract; and (e) each contract with such contractor, subcontractor or consultant shall incorporate such summary by reference as a part of the contract terms.

15. Audit and Inspection of Plants, Places of Business and Records

- (a) The State and its agents, including, but not limited to, the Connecticut Auditors of Public Accounts, Attorney General and State's Attorney and their respective agents, may, at reasonable hours, inspect and examine all of the parts of the Contractor's and Contractor Parties' plants and places of business which, in any way, are related to, or involved in, the performance of this Contract. For the purposes of this Section, "Contractor Parties" means the Contractor's members, directors, officers, shareholders, partners, managers, principal officers, representatives, agents, servants, consultants, employees or any one of them or any other person or entity with whom the Contractor is in privity of oral or written contract and the Contractor intends for such other person or entity to Perform under the Contract in any capacity.
- (b) The Contractor shall maintain and shall require each of the Contractor Parties to maintain, accurate and complete Records. The Contractor shall make all of its and the Contractor Parties' Records available at all reasonable hours for audit and inspection by the State and its agents.
- (c) The State shall make all requests for any audit or inspection in writing and shall provide the Contractor with at least twenty-four (24) hours' notice prior to the requested audit and inspection date. If the State suspects fraud or other abuse, or in the event of an emergency, the State is not obligated to provide any prior notice.

- (d) The Contractor shall keep and preserve or cause to be kept and preserved all of its and Contractor Parties' Records until three (3) years after the latter of (i) final payment under this Agreement, or (ii) the expiration or earlier termination of this Agreement, as the same may be modified for any reason. The State may request an audit or inspection at any time during this period. If any Claim or audit is started before the expiration of this period, the Contractor shall retain or cause to be retained all Records until all Claims or audit findings have been resolved.
- (e) The Contractor shall cooperate fully with the State and its agents in connection with an audit or inspection. Following any audit or inspection, the State may conduct and the Contractor shall cooperate with an exit conference.
- (f) The Contractor shall incorporate this entire Section verbatim into any contract or other agreement that it enters into with any Contractor Party.

16. Campaign Contribution Restriction

For all State contracts, defined in section 9-612 of the Connecticut General Statutes as having a value in a calendar year of \$50,000 or more, or a combination or series of such agreements or contracts having a value of \$100,000 or more, the authorized signatory to this Contract represents that they have received the State Elections Enforcement Commission's notice advising state contractors of state campaign contribution and solicitation prohibitions, and will inform its principals of the contents of the notice.

17. Tangible Personal Property

- (a) The Contractor on its behalf and on behalf of its Affiliates, as defined below, shall comply with the provisions of Conn. Gen. Stat. §12-411b, as follows:
 - (1)For the term of the Contract, the Contractor and its Affiliates shall collect and remit to the State of Connecticut, Department of Revenue Services, any Connecticut use tax due under the provisions of Chapter 219 of the Connecticut General Statutes for items of tangible personal property sold by the Contractor or by any of its Affiliates in the same manner as if the Contractor and such Affiliates were engaged in the business of selling tangible personal property for use in Connecticut and had sufficient nexus under the provisions of Chapter 219 to be required to collect Connecticut use tax;
 - (2) A customer's payment of a use tax to the Contractor or its Affiliates relieves the customer of liability for the use tax;
 - (3) The Contractor and its Affiliates shall remit all use taxes they collect from customers on or before the due date specified in the Contract, which may not be later than the last day of the month next succeeding the end of a calendar quarter or other tax collection period during which the tax was collected;
 - (4) The Contractor and its Affiliates are not liable for use tax billed by them but not paid to them by a customer; and
 - (5) Any Contractor or Affiliate who fails to remit use taxes collected on behalf of its customers by the due date specified in the Contract shall be subject to the interest and penalties provided for persons required to collect sales tax under chapter 219 of the general statutes.
- (b) For purposes of this section of the Contract, the word "Affiliate" means any person, as defined in section 12-1 of the general statutes, that controls, is controlled by, or is under common control with another person. A person controls another person if the person owns, directly or indirectly, more than ten per cent of the voting securities of the other person. The word "voting security" means a security that confers upon the holder the right to vote for the election of members of the board of directors or similar governing body of the business, or that is convertible into, or entitles the holder to receive, upon its exercise, a security that confers such a right to vote. "Voting security" includes a general partnership interest.
- (c) The Contractor represents and warrants that each of its Affiliates has vested in the Contractor plenary authority to so bind the Affiliates in any agreement with the State of Connecticut. The

Contractor on its own behalf and on behalf of its Affiliates shall also provide, no later than 30 days after receiving a request by the State's contracting authority, such information as the State may require to ensure, in the State's sole determination, compliance with the provisions of Chapter 219 of the Connecticut General Statutes, including, but not limited to, §12-411b.

18. Bid Rigging and/or Fraud - Notice to Contractor

The Connecticut Department of Transportation is cooperating with the U.S. Department of Transportation and the Justice Department in their investigation into highway construction contract bid rigging and/or fraud.

A toll-free "HOT LINE" telephone number 800-424-9071 has been established to receive information from contractors, subcontractors, manufacturers, suppliers or anyone with knowledge of bid rigging and/or fraud, either past or current. The "HOT LINE" telephone number will be available during normal working hours (8:00 am - 5:00 pm EST). Information will be treated confidentially and anonymity respected.

19. Consulting Agreement Representation

Pursuant to section 4a-81 of the Connecticut General Statutes, the person signing this Contract on behalf of the Contractor represents, to their best knowledge and belief and subject to the penalty of false statement as provided in section 53a-157b of the Connecticut General Statutes, that the Contractor has not entered into any consulting agreements in connection with this Contract, except for the agreements listed below or in an attachment to this Contract. "Consulting agreement" means any written or oral agreement to retain the services, for a fee, of a consultant for the purposes of (A) providing counsel to a contractor, vendor, consultant or other entity seeking to conduct, or conducting, business with the State, (B) contacting, whether in writing or orally, any executive, judicial, or administrative office of the State, including any department, institution, bureau, board, commission, authority, official or employee for the purpose of solicitation, dispute resolution, introduction, requests for information, or (C) any other similar activity related to such contracts. "Consulting agreement" does not include any agreements entered into with a consultant who is registered under the provisions of chapter 10 of the Connecticut General Statutes as of the date such contract is executed in accordance with the provisions of section 4a-81 of the Connecticut General Statutes.

Consultant's Name and Title		Name of Firm (if applicable)		
Start Date	End Date	Cost		
The basic terms of	the consulting agreement ar	re:		
Description of Serv	rices Provided:			
Is the consultant a f If YES:	Former State employee or fo	ormer public official? YES NO		
Name of Fo	rmer State Agency	Termination Date of Employment		

20. Sovereign Immunity

The parties acknowledge and agree that nothing in the Solicitation or the Contract shall be construed as a modification, compromise or waiver by the State of any rights or defenses of any immunities provided by Federal law or the laws of the State of Connecticut to the State or any of its officers and employees, which they may have had, now have or will have with respect to all matters arising out of the Contract. To the extent that this section conflicts with any other section, this section shall govern.

21. Large State Contract Representation for Contractor

Pursuant to section 4-252 of the Connecticut General Statutes and Acting Governor Susan Bysiewicz Executive Order No. 21-2, promulgated July 1, 2021, the Contractor, for itself and on behalf of all of its principals or key personnel who submitted a bid or proposal, represents:

- (1) That no gifts were made by (A) the Contractor, (B) any principals and key personnel of the Contractor, who participate substantially in preparing bids, proposals or negotiating State contracts, or (C) any agent of the Contractor or principals and key personnel, who participates substantially in preparing bids, proposals or negotiating State contracts, to (i) any public official or State employee of the State agency or quasipublic agency soliciting bids or proposals for State contracts, who participates substantially in the preparation of bid solicitations or requests for proposals for State contracts or the negotiation or award of State contracts, or (ii) any public official or State employee of any other State agency, who has supervisory or appointing authority over such State agency or quasi-public agency;
- (2) That no such principals and key personnel of the Contractor, or agent of the Contractor or of such principals and key personnel, knows of any action by the Contractor to circumvent such prohibition on gifts by providing for any other principals and key personnel, official, employee or agent of the Contractor to provide a gift to any such public official or State employee; and
- (3) That the Contractor is submitting bids or proposals without fraud or collusion with any person.

22. Large State Contract Representation for Official or Employee of State Agency

Pursuant to section 4-252 of the Connecticut General Statutes and Acting Governor Susan Bysiewicz Executive Order No. 21-2, promulgated July 1, 2021, the State agency official or employee represents that the selection of the person, firm or corporation was not the result of collusion, the giving of a gift or the promise of a gift, compensation, fraud or inappropriate influence from any person.

23. Iran Investment Energy Certification

(a) Pursuant to section 4-252a of the Connecticut General Statutes, the Contractor certifies that it has not made a direct investment of twenty million dollars or more in the energy sector of Iran on or after October 1, 2013, as described in Section 202 of the Comprehensive Iran Sanctions, Accountability and Divestment Act of 2010, and has not increased or renewed such investment on or after said date.

(b) If the Contractor makes a good faith effort to determine whether it has made an investment described in subsection (a) of this section then the Contractor shall not be deemed to be in breach of the Contract or in violation of this section. A "good faith effort" for purposes of this subsection includes a determination that the Contractor is not on the list of persons who engage in certain investment activities in Iran created by the Department of General Services of the State of California pursuant to Division 2, Chapter 2.7 of the California Public Contract Code. Nothing in this subsection shall be construed to impair the ability of the State agency or quasi-public agency to pursue a breach of contract action for any violation of the provisions of the Contract.

24. Access to Contract and State Data

The Contractor shall provide to the Client Agency access to any data, as defined in Conn. Gen Stat. Sec. 4e-1, concerning the Contract and the Client Agency that are in the possession or control of the Contractor upon demand and shall provide the data to the Client Agency in a format prescribed by the Client Agency and the State Auditors of Public Accounts at no additional cost.

25. Affirmative Action Policy Statement

The Contractor shall comply with the Affirmative Action Policy Statement, as applicable, attached at Exhibit B and hereby made part of this Contract.

EXHIBIT A

CONNECTICUT REQUIRED SPECIFIC EQUAL EMPLOYMENT OPPORTUNITY RESPONSIBILITIES July 2022

1. General:

- a) Equal employment opportunity requirements not to discriminate and to take affirmative action to assure equal employment opportunity as required by Executive Order 11246, Executive Order 11375 are set forth in Required Contract Provisions (Form PR-1273 or 1316, as appropriate) and these Special Provisions which are imposed pursuant to Section 140 of Title 23 U.S.C., as established by Section 22 of the Federal-Aid Highway Act of 1968, 49 CFR Part 21, 4a-60a and 46a-68c to 46a-68f of the Connecticut General Statutes. The requirements set forth in these Special Provisions shall constitute the specific affirmative action requirements for project activities under this contract and supplement the equal employment opportunity requirements set forth in the Required Contract Provisions.
- b) "Company" refers to any entity doing business with the Connecticut Department of Transportation and includes but is not limited to the following:

Contractors and Subcontractors
Consultants and Subconsultants
Suppliers of Materials and Vendors (where applicable)
Municipalities (where applicable)
Utilities (where applicable)

- c) The Company will work with the Connecticut Department of Transportation (CTDOT) and the Federal Government in carrying out equal employment opportunity obligations and in their review of his/her activities under the contract.
- d) The Company and all his/her subcontractors or subconsultants holding subcontracts not including material suppliers, of \$10,000 or more, will comply with the following minimum specific requirement activities of equal employment opportunity: (The equal employment opportunity requirements of Executive Order 11246, as set forth in volume 60, Chapter 4, Section 1, subsection 1 of the Federal-Aid Highway Program Manual, are applicable to material suppliers as well as contractors and subcontractors.) The company will include these requirements in every subcontract of \$10,000 or more with such modification of language as necessary to make them binding on the subcontractor or subconsultant.
- e) CTDOT shall require each contractor with contracts of \$10,000 or more or who have fifty or more employees and are awarded a public works contract, to comply with all existing procedures of CTDOT's Contract Compliance Program.

2. Equal Employment Opportunity Policy:

a) Companies with contracts, agreements or purchase orders valued at \$10,000 or more or who have fifty or more employees are required to comply with the Affirmative Action contract requirements. By signing a contract with CTDOT the contractor's commits to complying with federal and state requirements to provide equal employment opportunity to all persons without regard to their race, color, religion, creed, sex, gender identity or expression, marital status, age, national origin, ancestry, status as a veteran, intellectual disability, mental disability, learning disability or physical disability, including but not limited to blindness, unless such disability prevents performance of the work involved and to promote the full realization of equal employment opportunity through a positive and continuous efforts.

3. Project Workforce Utilization Goals:

These goals are applicable to all construction projects performed in the covered area work (whether the project is federal or state funded). If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for the geographical area where the work is actually performed.

- a. Appendix A establishes the goals for minority and female utilization in all crafts statewide on all State Funded construction projects.
- b. Appendix B establishes the goals for minority and female utilization in all crafts statewide on Federally assisted or funded construction projects.

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 which contain the applicable goals for minority and female participation.

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

State Utilization GoalsFederal Utilization GoalsSee Appendix ASee Appendix B

4. Executive Order 11246

The Contractor's compliance with Executive Order 11246 and 41-CFR Part 60-4 shall be based on its implementation of the 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 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 Part 60-4. Compliance with the goals will be measured against the total work hour performed.

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 Pan does not excuse any covered Contractor's of subcontractor's failure to take good faith efforts to achieve the plan goals and timetables.

The Contractor shall implement the specific affirmative action standards provided in a 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 construction work 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 geographical area where the work 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 (OFCCP) 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.

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 Contractors obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant hereto.

In order for the nonworking training hours of apprentices and trainees to be counted in meeting the workforce utilization 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.

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 attention 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.
- 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 thereafter; along with whatever additional actions the Contractor may have taken.
 - d) Provide immediate written notification to CTDOT when the Union or Unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or women 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 that which expressly target 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 b 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.
 - g) Review at least annually, the company EEO Policy and affirmative action obligations with all employees having any responsibility for hiring, assignments, layoffs, terminations, or other employment decisions, 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 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 project worksite and in other areas of the Contractor's workforce.
- k) Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- l) Conduct, at least annually, 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 opportunities through appropriate training 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 user 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 at least annually of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations:

Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (a 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 a 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 work-force participation, makes a good faith effort to meet with individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

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 non-minority. Consequently, the Contractor may be in violation of Executive Order 11246 if a particular group is employed in a substantially disparate manner, (for example, even though 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 under utilized).

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.

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

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.

The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps so as to achieve maximum results from its efforts to ensure equal employment opportunity.

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.

Nothing herein provided shall be construed as a limitation upon the application of their laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

The Director of the Office of Federal Contract Compliance Programs, from time to time, shall issue goals and timetables for minority and female utilization which shall be based on appropriate workforce, demographic or other relevant data and which shall cover construction projects or construction contracts performed in specific geographical areas. The goals, which shall be applicable to each construction trade in a covered contractor's or timetables, shall be published as notices in the Federal Register, and shall be inserted by the Contracting officers and applicants, as applicable, in the Notice required by 41 CFR 60-4.2.

5. Subcontracting:

a. The Company will use his/her best efforts to solicit bids from and to utilize minority group subcontractors or subcontractors with meaningful minority group and female representation among

their employees. Companies shall obtain lists of minority-owned construction firms from the Office of Equity.

b. The Company will use its best efforts to ensure subcontractor compliance with their equal employment opportunity obligations.

6. Records and Reports:

- a. The Company will keep such records as are necessary to determine compliance with equal employment opportunity obligations. The records kept by the Company will be designed to indicate:
 - 1. The number of minority and non-minority group members and women employed in each classification on the project.
 - 2. The progress and efforts being made in cooperation with unions to increase employment opportunities for minorities and women; (applicable only to contractors who rely in whole or in part on unions as a source of their work force),
 - 3. The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and
 - 4. The progress and efforts being made in securing the services of minority group subcontractors or subcontractors with meaningful minority and female representation among their employees.
 - 5. Records of internal and external communication and outreach to document its affirmative efforts.
- b. All such records must be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of CTDOT and/or the United States Department of Transportation.

c. For Federal Highway Administration funded projects only:

The Company will submit an annual report to CTDOT each July or as otherwise directed, for the duration of the project, indicating the number of minorities, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form PR 1391. If on-the-job training is being required by "Training Special Provision", the Company will be required to furnish Form FHWA 1409 and 1415 as required by CTDOT.

STATE FUNDED PROJECTS (only) APPENDIX A (Labor Market Goals)

LABOR MARKET AREA GOAL

Minority

Female

Bridgeport 1.4%				22.7%
Ansonia	Beacon Falls	Bridgeport	Derby	
Easton	Fairfield	Milford	Monroe	
Oxford	Seymour	Shelton	Stratford	
	-	Page 20 of 45		

Danbury				10.7%
3.8%				
Bethel	Bridgewater	Brookfield	Danbury	
Kent	New Fairfield	New Milford	Newtown	
Redding	Ridgefield	Roxbury	Sherman	
Washington				
Danielson 1.8%				4.3%
Brooklyn	Eastford	Hampton	Killingly	
Pomfret	Putnam	Scotland	Sterling	
Thompson	Voluntown	Union	Woodstock	
Hartford				13.7%
2.1% Andover	Ashford	Avon	Barkhamsted	
Belin	Bloomfield	Bolton	Bristol	
Burlington	Canton	Chaplin	Colchester	
Columbia		Cnapiin Cromwell	Durham	
	Coventry East Haddam		Durnam East Hartford	
East Window		East Hampton		
East Windsor	Ellington	Enfield	Farmington	
Glastonbury	Granby	Haddam	Hartford	
Harwinton	Hebron	Lebanon	Manchester	
Mansfield	Marlborough	Middlefield	Middletown	
Newington	Plainville	Plymouth	Portland	
Rocky Hill	Simsbury	Somers	South Windsor	
Southington	Stafford	Suffield	Tolland	
Vernon	West Hartford	Wethersfield	Willington	
Winchester	Windham	Windsor	Windsor Locks	
Lower River				4.3%
1.8%	Daan Divor	Eccay	Old Lyma	
Chester Westbrook	Deep River	Essex	Old Lyme	
LABOR MARKET	T AREA GOAL		<u> </u>	<u>Minority</u>
<u>Female</u>				
New Haven				17.9%
3.1%	D 0 1	C1 1:	C1'	
Bethany	Branford	Cheshire	Clinton	
East Haven	Guilford	Hamden	Killingworth	
Madison	Meriden	New Haven	North Branford	
North Haven	Orange	Wallingford	West Haven	
Woodbridge				
Woodonage				

July 2022

				July 20
3.1%				
Bozrah	Canterbury	East Lyme	Franklin	
Griswold	Groton	Ledyard	Lisbon	
Montville	New London	North Stonington	Norwich	
Old Lyme	Old Saybrook	Plainfield	Preston	
Salem	Sprague	Stonington	Waterford	
Hopkinton	RI – Westerly Rho	ode Island		
Stamford 2.1%				33.2%
Darien	Greenwich	New Canaan	Norwalk	
Stamford	Weston	Westport	Wilton	
Torrington				4.3%
1.8%				
Canaan	Colebrook	Cornwall	Goshen	
Hartland	Kent	Litchfield	Morris	
Norfolk	North Canaan	Salisbury	Sharon	
Torrington	Warren			
Waterbury 1.6%				12.4%
Bethlehem	Middlebury	Naugatuck	Prospect	
Southbury	Thomaston	Waterbury	Watertown	
Wolcott	Woodbury	·		
	•			

EXHIBIT B

AFFIRMATIVE ACTION POLICY STATEMENT (July 2022)

It is the policy of this firm to assure that applicants are employed, and that employees are treated during employment, without regard to an individual's race, color, religion, creed, sex, gender identity or expression, marital status, national origin, age, ancestry, status as a veteran, intellectual disability, mental disability, learning disability or physical disability, including but not limited to blindness, unless such disability prevents performance of the work involved and to promote the full realization of equal employment opportunity through positive and continuous affirmative efforts. Such action shall include employment, promotion, demotion or transfer, recruitment or recruitment advertising, layoff or terminations, rates of pay or other forms of compensation, selection for training/apprenticeship, preapprenticeship opportunities, and on-the-job training opportunities.

This firm will implement, monitor, enforce and achieve full compliance with this Affirmative Action Policy Statement in conjunction with the applicable Federal and State laws, regulations, executive orders, and contract provisions, including but not limited to those listed below:

Dissemination of Policy:

All members of the firm who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, this firm's Equal Employment Opportunity (EEO) policy and

contractual responsibilities to provide EEO in each grade and classification of employment. These actions shall include:

- 1. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the firm's EEO policy and its implementation will be reviewed and explained. These meetings will be conducted by the EEO officer.
- 2. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.
- 3. All personnel who are engaged in direct recruitment for the firm will be instructed by the EEO Officer of the contractor's procedures for locating and hiring minority group employees.
- 4. Notices and posters setting forth the firm's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.
- 5. The firm's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.
- 6. Sexual Harassment Prevention Resources including training and remedies must be available to all employees. See Connecticut General Assembly Public Acts <u>19–16</u> and <u>19–93</u>.

Recruitment:

When advertising for employees, the firm will include in all advertisements the notation; "An Affirmative Action/Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area where the workforce would normally be derived.

- 1. The firm will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority and female applicants. To meet this requirement, the firm will identify referral sources and establish procedures for recruitment to obtain the referral of minority and female applicants.
- 2. In the event the firm has a valid bargaining agreement providing for exclusive hiring referrals, he/she is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The United States Department of Labor has held that where implementation of such agreements has had the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)
- 3. The firm will encourage his/her present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

Personnel Actions:

Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to an individual's race, color, religion, creed, sex, gender identity or expression, marital status, national origin, age, ancestry, status as a veteran, intellectual disability, mental disability, learning disability or physical disability, including but not limited to blindness, unless such disability prevents performance of the work involved. The following procedures shall be followed:

- 1. The firm will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of personnel.
- 2. The firm will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take correction action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.
- 3. The firm shall periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.
- 4. The firm will promptly investigate all complaints of alleged discrimination made to the firm and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective actions shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

Training and Promotion:

The firm will assist in locating, qualifying, and increasing the skills of minorities and women. The firm will utilize the following tools to identify training and promotional opportunities in the firm:

- 1. The firm will advise employees and applicants for employment of available training programs and the entrance requirements.
- 2. The firm will periodically review the training and promotion of minority group and female employees and will encourage eligible employees to apply for such training and promotion.

Unions:

If the firm relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the firm either directly or through a contractor's association acting as agent will include the procedures set forth below:

- 1. The firm will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.
- 2. The firm will use best efforts to incorporate an EEO clause into each union agreement to the extent that such union will be contractually bound to refer applicants without regard to their to an individual's race, color, religion, creed, sex, gender identity or expression, marital status, national origin, age, ancestry, status as a veteran, intellectual disability, mental disability, learning disability or physical disability, including but not limited to blindness, unless such disability prevents performance of the work involved.
- 3. The firm is to obtain information as to the referral practices and policies of the labor union except that to the extent that such information is within the exclusive possession of the labor union and such labor union refuses to furnish the information to the contractor, the contractor shall notify the Connecticut Department of Transportation (CTDOT) of the efforts made to obtain the information.
- 4. In the event the union is unable to provide the firm with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies. (The United States Department of Labor has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to

refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations under Executive Order 11246 as amended, and in compliance with 23 CFR Part 230, the firm will notify CTDOT.

Selection of Subcontractors:

The firm will not discriminate on the grounds race, color, religion, sex, sexual orientation, gender identity or expression, marital status, national origin, ancestry, age, intellectual disability, learning disability, physical disability, including, but not limited to, blindness, or status as a veteran in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

1. The firm shall use his/her best efforts to ensure subcontractor/subconsultant compliance with Federal and State Equal Opportunity (EO) and EEO requirements.

Records and Reports:

The Contractor shall keep records as necessary to document compliance with EO/EEO requirements. Such reports shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of CTDOT and/or the United States Department of Transportation. The following records should be maintained:

- 6. The number of minority and non-minority group members and women employed in each work classification;
- 7. The progress and efforts being made in cooperation with unions, when applicable to increase the employment opportunities for minorities and women;
- 8. The documentation showing progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and
- 9. Complaints of Discrimination.

In implementing this policy and ensuring that affirmative action is being provided, each time a hiring opportunity occurs this firm will contact and request referrals from minority and female organizations, referral sources, and media sources. All advertising will emphasize that the firm is "An Affirmative Action/Equal Opportunity Employer."

In order to substantiate this firm's efforts and affirmative actions to provide equal opportunity, the firm will maintain and submit, as requested, documentation such as referral request correspondence, copies of advertisements utilized and follow-up documentation to substantiate that efforts were made in good faith. This firm will maintain the necessary internal audit procedures and record keeping systems to report the firm's affirmative action efforts.

It is understood by Owner/CEO/President of the firm and the firm's Equal Employment Opportunity Officer and supervisory and managerial personnel that failure to effectively implement, monitor and enforce this firm's affirmative action program and/or failure to adequately document and submit as required, the affirmative actions taken and efforts made to recruit and hire minority and female applicants in accordance with our affirmative action program in each instance of hire, will result in this firm being required to recommit itself to a modified and more stringent affirmative action program as a condition of approval. It is recognized that this policy is a contractual requirement and is a prerequisite for performing services for the contracting agency. This policy in addition to CTDOT's EO/EEO contract provisions and requirements, shall constitute the CTDOT Affirmative Program requirements.

The ultimate responsibility for the full implementation of this firm's Affirmative Action Program rests with the Chief Executive Officer of this firm.

Rev. 4/24/2019

EXHIBIT C

Health Insurance Portability and Accountability Act of 1996 ("HIPAA").

- (a) If the Contactor is a Business Associate under the requirements of the Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), the Contractor must comply with all terms and conditions of this Section of the Contract. If the Contractor is not a Business Associate under HIPAA, this Section of the Contract does not apply to the Contractor for this Contract.
- (b) The Contractor is required to safeguard the use, publication and disclosure of information on all applicants for, and all clients who receive, services under the Contract in accordance with all applicable federal and state law regarding confidentiality, which includes but is not limited to HIPAA, more specifically with the Privacy and Security Rules at 45 C.F.R. Part 160 and Part 164, subparts A, C, and E; and
- (c) The State of Connecticut Agency named on page 1 of this Contract (hereinafter the "Department") is a "covered entity" as that term is defined in 45 C.F.R. § 160.103; and
- (d) The Contractor, on behalf of the Department, performs functions that involve the use or disclosure of "individually identifiable health information," as that term is defined in 45 C.F.R. § 160.103; and
- (e) The Contractor is a "business associate" of the Department, as that term is defined in 45 C.F.R. § 160.103; and
- (f) The Contractor and the Department agree to the following in order to secure compliance with the HIPAA, the requirements of Subtitle D of the Health Information Technology for Economic and Clinical Health Act (hereinafter the HITECH Act), (Pub. L. 111-5, sections 13400 to 13423), and more specifically with the Privacy and Security Rules at 45 C.F.R. Part 160 and Part 164, subparts A, C, and E.
- (g) Definitions
 - (1) "Breach shall have the same meaning as the term is defined in section 13400 of the HITECH Act (42 U.S.C. §17921(1))
 - (2) "Business Associate" shall mean the Contractor.
 - (3) "Covered Entity" shall mean the Department of the State of Connecticut named on page 1 of this Contract.

- (4) "Designated Record Set" shall have the same meaning as the term "designated record set" in 45 C.F.R. § 164.501.
- (5) "Electronic Health Record" shall have the same meaning as the term is defined in section 13400 of the HITECH Act (42 U.S.C. §17921(5))
- (6) "Individual" shall have the same meaning as the term "individual" in 45 C.F.R. § 160.103 and shall include a person who qualifies as a personal representative as defined in 45 C.F.R. § 164.502(g).
- (7) "Privacy Rule" shall mean the Standards for Privacy of Individually Identifiable Health Information at 45 C.F.R. part 160 and parts 164, subparts A and E.
- (8) "Protected Health Information" or "PHI" shall have the same meaning as the term "protected health information" in 45 C.F.R. § 160.103, limited to information created or received by the Business Associate from or on behalf of the Covered Entity.
- (9) "Required by Law" shall have the same meaning as the term "required by law" in 45 C.F.R. § 164.103.
- (10) "Secretary" shall mean the Secretary of the Department of Health and Human Services or his designee.
- (11) "More stringent" shall have the same meaning as the term "more stringent" in 45 C.F.R. § 160.202.
- (12) "This Section of the Contract" refers to the HIPAA Provisions stated herein, in their entirety.
- (13) "Security Incident" shall have the same meaning as the term "security incident" in 45 C.F.R.§ 164.304.
- (14) "Security Rule" shall mean the Security Standards for the Protection of Electronic Protected Health Information at 45 C.F.R. part 160 and parts 164, subpart A and C.
- (15) "Unsecured protected health information" shall have the same meaning as the term as defined in section 13402(h)(1)(A) of HITECH. Act. (42 U.S.C. §17932(h)(1)(A)).
- (h) Obligations and Activities of Business Associates.
 - (1) Business Associate agrees not to use or disclose PHI other than as permitted or required by this Section of the Contract or as Required by Law.
 - (2) Business Associate agrees to use appropriate safeguards to prevent use or disclosure of PHI other than as provided for in this Section of the Contract.
 - (3) Business Associate agrees to use administrative, physical and technical safeguards that reasonably and appropriately protect the confidentiality, integrity, and availability of

- electronic protected health information that it creates, receives, maintains, or transmits on behalf of the Covered Entity.
- (4) Business Associate agrees to mitigate, to the extent practicable, any harmful effect that is known to the Business Associate of a use or disclosure of PHI by Business Associate in violation of this Section of the Contract.
- (5) Business Associate agrees to report to Covered Entity any use or disclosure of PHI not provided for by this Section of the Contract or any security incident of which it becomes aware.
- (6) Business Associate agrees to insure that any agent, including a subcontractor, to whom it provides PHI received from, or created or received by Business Associate, on behalf of the Covered Entity, agrees to the same restrictions and conditions that apply through this Section of the Contract to Business Associate with respect to such information.
- (7) Business Associate agrees to provide access, at the request of the Covered Entity, and in the time and manner agreed to by the parties, to PHI in a Designated Record Set, to Covered Entity or, as directed by Covered Entity, to an Individual in order to meet the requirements under 45 C.F.R. § 164.524.
- (8) Business Associate agrees to make any amendments to PHI in a Designated Record Set that the Covered Entity directs or agrees to pursuant to 45 C.F.R. § 164.526 at the request of the Covered Entity, and in the time and manner agreed to by the parties.
- (9) Business Associate agrees to make internal practices, books, and records, including policies and procedures and PHI, relating to the use and disclosure of PHI received from, or created or received by, Business Associate on behalf of Covered Entity, available to Covered Entity or to the Secretary in a time and manner agreed to by the parties or designated by the Secretary, for purposes of the Secretary determining Covered Entity's compliance with the Privacy Rule.
- (10)Business Associate agrees to document such disclosures of PHI and information related to such disclosures as would be required for Covered Entity to respond to a request by an Individual for an accounting of disclosures of PHI in accordance with 45 C.F.R. § 164.528 and section 13405 of the HITECH Act (42 U.S.C. § 17935) and any regulations promulgated thereunder.
- (11)Business Associate agrees to provide to Covered Entity, in a time and manner agreed to by the parties, information collected in accordance with clause h. (10) of this Section of the Contract, to permit Covered Entity to respond to a request by an Individual for an accounting of disclosures of PHI in accordance with 45 C.F.R. § 164.528 and section 13405 of the HITECH Act (42 U.S.C. § 17935) and any regulations promulgated thereunder. Business Associate agrees at the Covered Entity's direction to provide an accounting of disclosures of PHI directly to an individual in accordance with 45 C.F.R. § 164.528 and section 13405 of the HITECH Act (42 U.S.C. § 17935) and any regulations promulgated thereunder.
- (12)Business Associate agrees to comply with any state or federal law that is more stringent than the Privacy Rule.

- (13) Business Associate agrees to comply with the requirements of the HITECH Act relating to privacy and security that are applicable to the Covered Entity and with the requirements of 45 C.F.R. sections 164.504(e), 164.308, 164.310, 164.312, and 164.316.
- (14) In the event that an individual requests that the Business Associate (a) restrict disclosures of PHI; (b) provide an accounting of disclosures of the individual's PHI; or (c) provide a copy of the individual's PHI in an electronic health record, the Business Associate agrees to notify the covered entity, in writing, within two business days of the request.
- (15) Business Associate agrees that it shall not, directly or indirectly, receive any remuneration in exchange for PHI of an individual without (1) the written approval of the covered entity, unless receipt of remuneration in exchange for PHI is expressly authorized by this Contract and (2) the valid authorization of the individual, except for the purposes provided under section 13405(d)(2) of the HITECH Act,(42 U.S.C. § 17935(d)(2)) and in any accompanying regulations

(16) Obligations in the Event of a Breach

- A. The Business Associate agrees that, following the discovery of a breach of unsecured protected health information, it shall notify the Covered Entity of such breach in accordance with the requirements of section 13402 of HITECH (42 U.S.C. 17932(b) and the provisions of this Section of the Contract.
- B. Such notification shall be provided by the Business Associate to the Covered Entity without unreasonable delay, and in no case later than 30 days after the breach is discovered by the Business Associate, except as otherwise instructed in writing by a law enforcement official pursuant to section 13402 (g) of HITECH (42 U.S.C. 17932(g)). A breach is considered discovered as of the first day on which it is, or reasonably should have been, known to the Business Associate. The notification shall include the identification and last known address, phone number and email address of each individual (or the next of kin of the individual if the individual is deceased) whose unsecured protected health information has been, or is reasonably believed by the Business Associate to have been, accessed, acquired, or disclosed during such breach.
- C. The Business Associate agrees to include in the notification to the Covered Entity at least the following information:
 - 1. A brief description of what happened, including the date of the breach and the date of the discovery of the breach, if known.
 - 2. A description of the types of unsecured protected health information that were involved in the breach (such as full name, Social Security number, date of birth, home address, account number, or disability code).
 - 3. The steps the Business Associate recommends that individuals take to protect themselves from potential harm resulting from the breach.

- 4. A detailed description of what the Business Associate is doing to investigate the breach, to mitigate losses, and to protect against any further breaches.
- 5. Whether a law enforcement official has advised either verbally or in writing the Business Associate that he or she has determined that notification or notice to individuals or the posting required under section 13402 of the HITECH Act would impede a criminal investigation or cause damage to national security and; if so, include contact information for said official.
- D. Business Associate agrees to provide appropriate staffing and have established procedures to ensure that individuals informed by the Covered Entity of a breach by the Business Associate have the opportunity to ask questions and contact the Business Associate for additional information regarding the breach. Such procedures shall include a toll-free telephone number, an e-mail address, a posting on its Web site and a postal address. Business Associate agrees to include in the notification of a breach by the Business Associate to the Covered Entity, a written description of the procedures that have been established to meet these requirements. Costs of such contact procedures will be borne by the Contractor.
- E. Business Associate agrees that, in the event of a breach, it has the burden to demonstrate that it has complied with all notifications requirements set forth above, including evidence demonstrating the necessity of a delay in notification to the Covered Entity.
- (i) Permitted Uses and Disclosure by Business Associate.
 - (1) General Use and Disclosure Provisions Except as otherwise limited in this Section of the Contract, Business Associate may use or disclose PHI to perform functions, activities, or services for, or on behalf of, Covered Entity as specified in this Contract, provided that such use or disclosure would not violate the Privacy Rule if done by Covered Entity or the minimum necessary policies and procedures of the Covered Entity.
 - (2) Specific Use and Disclosure Provisions
 - (A) Except as otherwise limited in this Section of the Contract, Business Associate may use PHI for the proper management and administration of Business Associate or to carry out the legal responsibilities of Business Associate.
 - (B) Except as otherwise limited in this Section of the Contract, Business Associate may disclose PHI for the proper management and administration of Business Associate, provided that disclosures are Required by Law, or Business Associate obtains reasonable assurances from the person to whom the information is disclosed that it will remain confidential and used or further disclosed only as Required by Law or for the purpose for which it was disclosed to the person, and the person notifies Business Associate of any instances of which it is aware in which the confidentiality of the information has been breached.

- (C) Except as otherwise limited in this Section of the Contract, Business Associate may use PHI to provide Data Aggregation services to Covered Entity as permitted by 45 C.F.R. § 164.504(e)(2)(i)(B).
- (j) Obligations of Covered Entity.
 - (1) Covered Entity shall notify Business Associate of any limitations in its notice of privacy practices of Covered Entity, in accordance with 45 C.F.R. § 164.520, or to the extent that such limitation may affect Business Associate's use or disclosure of PHI.
 - (2) Covered Entity shall notify Business Associate of any changes in, or revocation of, permission by Individual to use or disclose PHI, to the extent that such changes may affect Business Associate's use or disclosure of PHI.
 - (3) Covered Entity shall notify Business Associate of any restriction to the use or disclosure of PHI that Covered Entity has agreed to in accordance with 45 C.F.R. § 164.522, to the extent that such restriction may affect Business Associate's use or disclosure of PHI.
- (k) Permissible Requests by Covered Entity. Covered Entity shall not request Business Associate to use or disclose PHI in any manner that would not be permissible under the Privacy Rule if done by the Covered Entity, except that Business Associate may use and disclose PHI for data aggregation, and management and administrative activities of Business Associate, as permitted under this Section of the Contract.
- (1) Term and Termination.
 - (1) Term. The Term of this Section of the Contract shall be effective as of the date the Contract is effective and shall terminate when the information collected in accordance with clause h. (10) of this Section of the Contract is provided to the Covered Entity and all of the PHI provided by Covered Entity to Business Associate, or created or received by Business Associate on behalf of Covered Entity, is destroyed or returned to Covered Entity, or, if it is infeasible to return or destroy PHI, protections are extended to such information, in accordance with the termination provisions in this Section.
 - (2) Termination for Cause Upon Covered Entity's knowledge of a material breach by Business Associate, Covered Entity shall either:
 - (A) Provide an opportunity for Business Associate to cure the breach or end the violation and terminate the Contract if Business Associate does not cure the breach or end the violation within the time specified by the Covered Entity; or
 - (B) Immediately terminate the Contract if Business Associate has breached a material term of this Section of the Contract and cure is not possible; or
 - (C) If neither termination nor cure is feasible, Covered Entity shall report the violation to the Secretary.
 - (3) Effect of Termination

- (A) Except as provided in (l)(2) of this Section of the Contract, upon termination of this Contract, for any reason, Business Associate shall return or destroy all PHI received from Covered Entity, or created or received by Business Associate on behalf of Covered Entity. Business Associate shall also provide the information collected in accordance with clause h. (10) of this Section of the Contract to the Covered Entity within ten business days of the notice of termination. This provision shall apply to PHI that is in the possession of subcontractors or agents of Business Associate. Business Associate shall retain no copies of the PHI.
- (B) In the event that Business Associate determines that returning or destroying the PHI is infeasible, Business Associate shall provide to Covered Entity notification of the conditions that make return or destruction infeasible. Upon documentation by Business Associate that return or destruction of PHI is infeasible, Business Associate shall extend the protections of this Section of the Contract to such PHI and limit further uses and disclosures of PHI to those purposes that make return or destruction infeasible, for as long as Business Associate maintains such PHI. Infeasibility of the return or destruction of PHI includes, but is not limited to, requirements under state or federal law that the Business Associate maintains or preserves the PHI or copies thereof.
- (m) Miscellaneous Provisions.
 - (1) Regulatory References. A reference in this Section of the Contract to a section in the Privacy Rule means the section as in effect or as amended.
 - (2) Amendment. The Parties agree to take such action as in necessary to amend this Section of the Contract from time to time as is necessary for Covered Entity to comply with requirements of the Privacy Rule and the Health Insurance Portability and Accountability Act of 1996, Pub. L. No. 104-191.
 - (3) Survival. The respective rights and obligations of Business Associate shall survive the termination of this Contract.
 - (4) Effect on Contract. Except as specifically required to implement the purposes of this Section of the Contract, all other terms of the Contract shall remain in force and effect.
 - (5) Construction. This Section of the Contract shall be construed as broadly as necessary to implement and comply with the Privacy Standard. Any ambiguity in this Section of the Contract shall be resolved in favor of a meaning that complies, and is consistent with, the Privacy Standard.
 - (6) Disclaimer. Covered Entity makes no warranty or representation that compliance with this Section of the Contract will be adequate or satisfactory for Business Associate's own purposes. Covered Entity shall not be liable to Business Associate for any claim, civil or criminal penalty, loss or damage related to or arising from the unauthorized use or disclosure of PHI by Business Associate or any of its officers, directors, employees, contractors or agents, or any third party to whom Business Associate has disclosed PHI contrary to the provisions of this Contract or applicable law. Business Associate is solely responsible for all decisions made, and actions taken, by Business Associate

regarding the safeguarding, use and disclosure of PHI within its possession, custody or control.

(7) Indemnification. The Business Associate shall indemnify and hold the Covered Entity harmless from and against any and all claims, liabilities, judgments, fines, assessments, penalties, awards and any statutory damages that may be imposed or assessed pursuant to HIPAA, as amended or the HITECH Act, including, without limitation, attorney's fees, expert witness fees, costs of investigation, litigation or dispute resolution, and costs awarded thereunder, relating to or arising out of any violation by the Business Associate and its agents, including subcontractors, of any obligation of Business Associate and its agents, including subcontractors, under this section of the contract, under HIPAA, the HITECH Act, the Privacy Rule and the Security Rule.

EXHIBIT D

State Wages and Other Related Information

Please refer to the Department of Labor website for the latest updates, annual adjusted wage rate increases, certified payroll forms and applicable statutes.

http://www.ctdol.state.ct.us/wgwkstnd/prevailwage.htm

Prevailing Wage Law Poster Language

THIS IS A PUBLIC WORKS PROJECT Covered by the PREVAILING WAGE LAW CT General Statutes Section 31-53

If you have QUESTIONS regarding your wages CALL (860) 263-6790

Section 31-55 of the CT State Statutes requires every contractor or subcontractor performing work for the state to post in a prominent place the prevailing wages as determined by the Labor Commissioner.

Informational Bulletin

THE 10-HOUR OSHA CONSTRUCTION SAFETY AND HEALTH COURSE (applicable to public building contracts entered into on or after July 1, 2007, where the total cost of all work to be performed is at least \$100,000)

- (1) This requirement was created by Public Act No. 06-175, which is codified in Section 31-53b of the Connecticut General Statutes (pertaining to the prevailing wage statutes);
- (2) The course is required for public building construction contracts (projects funded in whole or in part by the state or any political subdivision of the state) entered into on or after July 1, 2007;
- (3) It is required of private employees (not state or municipal employees) and apprentices who perform manual labor for a general contractor or subcontractor on a public building project where the total cost of all work to be performed is at least \$100,000;
- (4) The ten-hour construction course pertains to the ten-hour Outreach Course conducted in accordance with federal OSHA Training Institute standards, and, for telecommunications workers, a ten-hour training course conducted in accordance with federal OSHA standard, 29 CFR 1910.268;
- (5) The internet website for the federal OSHA Training Institute is http://www.osha.gov/fso/ote/training/edcenters/fact_sheet.html;
- (6) The statutory language leaves it to the contractor and its employees to determine who pays for the cost of the ten-hour Outreach Course;

- (7) Within 30 days of receiving a contract award, a general contractor must furnish proof to the Labor Commissioner that all employees and apprentices performing manual labor on the project will have completed such a course;
- (8) Proof of completion may be demonstrated through either: (a) the presentation of a bona fide student course completion card issued by the federal OSHA Training Institute; or (2) the presentation of documentation provided to an employee by a trainer certified by the Institute pending the actual issuance of the completion card;
- (9) Any card with an issuance date more than 5 years prior to the commencement date of the construction project shall not constitute proof of compliance;
- (10) Each employer shall affix a copy of the construction safety course completion card to the certified payroll submitted to the contracting agency in accordance with Conn. Gen. Stat. § 31-53(f) on which such employee's name first appears;
- (11) Any employee found to be in non-compliance shall be subject to removal from the worksite if such employee does not provide satisfactory proof of course completion to the Labor Commissioner by the fifteenth day after the date the employee is determined to be in noncompliance;
- (12) Any such employee who is determined to be in noncompliance may continue to work on a public building construction project for a maximum of fourteen consecutive calendar days while bringing his or her status into compliance;
- (13) The Labor Commissioner may make complaint to the prosecuting authorities regarding any employer or agent of the employer, or officer or agent of the corporation who files a false certified payroll with respect to the status of an employee who is performing manual labor on a public building construction project;
- (14) The statute provides the minimum standards required for the completion of a safety course by manual laborers on public construction contracts; any contractor can exceed these minimum requirements; and
- (15) Regulations clarifying the statute are currently in the regulatory process, and shall be posted on the CTDOL website as soon as they are adopted in final form.
- (16) Any questions regarding this statute may be directed to the Wage and Workplace Standards Division of the Connecticut Labor Department via the internet website of http://www.ctdol.state.ct.us/wgwkstnd/wgemenu.htm; or by telephone at (860)263-6790.

THE ABOVE INFORMATION IS PROVIDED EXCLUSIVELY AS AN EDUCATIONAL RESOURCE, AND IS NOT INTENDED AS A SUBSTITUTE FOR LEGAL INTERPRETATIONS WHICH MAY ULTMATELY ARISE CONCERNIG THE CONSTRUCTION OF THE STATUTE OR THE REGULATIONS.

Notice

To All Mason Contractors and Interested Parties Regarding Construction Pursuant to Section 31-53 of the Connecticut General Statutes (Prevailing Wage)

The Connecticut Labor Department Wage and Workplace Standards Division is empowered to enforce the prevailing wage rates on projects covered by the above referenced statute. Over the past few years the Division has withheld enforcement of the rate in effect for workers who operate a forklift on a prevailing wage rate project due to a potential jurisdictional dispute. The rate listed in the schedules and in our Occupational Bulletin (see enclosed) has been as follows:

Forklift Operator:

- Laborers (Group 4) Mason Tenders operates forklift solely to assist a mason to a maximum height of nine feet only.
- Power Equipment Operator (Group 9) operates forklift to assist any trade and to assist a mason to a height over nine feet.

The U.S. Labor Department conducted a survey of rates in Connecticut but it has not been published and the rate in effect remains as outlined in the above Occupational Bulletin.

Since this is a classification matter and not one of jurisdiction, effective January 1, 2007 the Connecticut Labor Department will enforce the rate on each schedule in accordance with our statutory authority.

Your cooperation in filing appropriate and accurate certified payrolls is appreciated.

CONNECTICUT DEPARTMENT OF LABOR WAGE AND WORKPLACE STANDARDS DIVISION

CONTRACTORS WAGE CERTIFICATION FORMConstruction Manager at Risk/General Contractor/Prime Contractor

I,	of	
I,Officer, Owner, Authorized Rep.		Company Name
do hereby certify that the		
· · · · · · · · · · · · · · · · · · ·	Company	y Name
	Street	
	City	
and all of its subcontractors will pay all wor	rkers on the	
Project Name	e and Numbe	r
Street and Cit	ty	
the wages as listed in the schedule of prevai attached hereto).	iling rates re	quired for such project (a copy of which is
		Signed
Subscribed and sworn to before me this	day	of,
	_	Notary Public
		rioury ruone
Return to: Connecticut Department of Labo Wage & Workplace Standards D 200 Folly Brook Blvd. Wethersfield, CT 06109		
Rate Schedule Issued (Date):		

Information Bulletin Occupational Classifications

The Connecticut Department of Labor has the responsibility to properly determine "job classification" on prevailing wage projects covered under C.G.S. Section 31-53(d).

Note: This information is intended to provide a sample of some occupational classifications for guidance purposes only. It is not an all-inclusive list of each occupation's duties. This list is being provided only to highlight some areas where a contractor may be unclear regarding the proper classification. If unsure, the employer should seek guidelines for CTDOL.

Below are additional clarifications of specific job duties performed for certain classifications:

□ ASBESTOS WORKERS

Applies all insulating materials, protective coverings, coatings and finishes to all types of mechanical systems.

□ ASBESTOS INSULATOR

Handle, install apply, fabricate, distribute, prepare, alter, repair, dismantle, heat and frost insulation, including penetration and fire stopping work on all penetration fire stop systems.

□ **BOILERMAKERS**

Erects hydro plants, incomplete vessels, steel stacks, storage tanks for water, fuel, etc. Builds incomplete boilers, repairs heat exchanges and steam generators.

□ <u>BRICKLAYERS, CEMENT MASONS, CEMENT FINISHERS, MARBLE MASONS, PLASTERERS, STONE MASONS, PLASTERERS. STONE MASONS, TERRAZZO</u> WORKERS, TILE SETTERS

Lays building materials such as brick, structural tile and concrete cinder, glass, gypsum, terra cotta block. Cuts, tools and sets marble, sets stone, finishes concrete, applies decorative steel, aluminum and plastic tile, applies cements, sand, pigment and marble chips to floors, stairways, etc.

□ <u>CARPENTERS, MILLWRIGHTS. PILEDRIVERMEN. LATHERS. RESILEINT</u> <u>FLOOR LAYERS, DOCK BUILDERS, DIKERS, DIVER TENDERS</u>

Constructs, erects, installs and repairs structures and fixtures of wood, plywood and wallboard. Installs, assembles, dismantles, moves industrial machinery. Drives piling into ground to provide foundations for structures such as buildings and bridges, retaining walls for earth embankments, such as cofferdams. Fastens wooden, metal or rockboard lath to walls, ceilings and partitions of buildings, acoustical tile layer, concrete form builder. Applies firestopping materials on fire resistive joint systems only. Installation of curtain/window walls only where attached to wood or metal studs. Installation of insulated material of all types whether blown, nailed or attached in other ways to walls, ceilings and floors of buildings. Assembly and installation of modular furniture/furniture systems. Free-standing furniture is not covered. This includes free standing:

student chairs, study top desks, book box desks, computer furniture, dictionary stand, atlas stand, wood shelving, two-position information access station, file cabinets, storage cabinets, tables, etc.

□ **LABORER**, **CLEANING**

• The clean up of any construction debris and the general (heavy/light) cleaning, including sweeping, wash down, mopping, wiping of the construction facility and its furniture, washing, polishing, and dusting.

□ <u>DELIVERY PERSONNEL</u>

- If delivery of supplies/building materials is to one common point and stockpiled there, prevailing wages are not required. If the delivery personnel are involved in the distribution of the material to multiple locations within the construction site then they would have to be paid prevailing wages for the type of work performed: laborer, equipment operator, electrician, ironworker, plumber, etc.
- An example of this would be where delivery of drywall is made to a building and the delivery personnel distribute the drywall from one "stockpile" location to further sub-locations on each floor. Distribution of material around a construction site is the job of a laborer or tradesman, and not a delivery personnel.

□ **ELECTRICIANS**

Install, erect, maintenance, alteration or repair of any wire, cable, conduit, etc., which generates, transforms, transmits or uses electrical energy for light, heat, power or other purposes, including the Installation or maintenance of telecommunication, LAN wiring or computer equipment, and low voltage wiring. *License required per Connecticut General Statutes: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9.

□ ELEVATOR CONSTRUCTORS

Install, erect, maintenance and repair of all types of elevators, escalators, dumb waiters and moving walks. *License required by Connecticut General Statutes: R-1, 2, 5, 6.

☐ FORK LIFT OPERATOR

Laborers Group 4) Mason Tenders - operates forklift solely to assist a mason to a maximum height of nine (9) feet only.

Power Equipment Operator Group 9 - operates forklift to assist any trade, and to assist a mason to a height over nine (9) feet.

☐ GLAZIERS

Glazing wood and metal sash, doors, partitions, and 2 story aluminum storefronts. Installs glass windows, skylights, store fronts and display cases or surfaces such as building fronts, interior walls, ceilings and table tops and metal store fronts. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers, which require equal composite workforce.

□ **IRONWORKERS**

Erection, installation and placement of structural steel, precast concrete, miscellaneous iron, ornamental iron, metal curtain wall, rigging and reinforcing steel. Handling, sorting, and installation of reinforcing steel (rebar). Metal bridge rail (traffic), metal bridge handrail, and decorative security fence installation. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers which require equal composite workforce.

☐ INSULATOR

• Installing fire stopping systems/materials for "Penetration Firestop Systems": transit to cables, electrical conduits, insulated pipes, sprinkler pipe penetrations, ductwork behind radiation, electrical cable trays, fire rated pipe penetrations, natural polypropylene, HVAC ducts, plumbing bare metal, telephone and communication wires, and boiler room ceilings.

□ **LABORERS**

Acetylene burners, asphalt rakers, chain saw operators, concrete and power buggy operator, concrete saw operator, fence and guard rail erector (except metal bridge rail (traffic), decorative security fence (non-metal).

installation.), hand operated concrete vibrator operator, mason tenders, pipelayers (installation of storm drainage or sewage lines on the street only), pneumatic drill operator, pneumatic gas and electric drill operator, powermen and wagon drill operator, air track operator, block paver, curb setters, blasters, concrete spreaders.

□ **PAINTERS**

Maintenance, preparation, cleaning, blasting (water and sand, etc.), painting or application of any protective coatings of every description on all bridges and appurtenances of highways, roadways, and railroads. Painting, decorating, hardwood finishing, paper hanging, sign writing, scenic art work and drywall hhg for any and all types of building and residential work.

☐ <u>LEAD PAINT REMOVAL</u>

• Painter's Rate 1. Removal of lead paint from bridges. 2. Removal of lead paint as preparation of any surface to be repainted. 3. Where removal is on a Demolition project prior to reconstruction. • Laborer's Rate 1. Removal of lead paint from any surface NOT to be repainted. 2. Where removal is on a TOTAL Demolition project only.

☐ PLUMBERS AND PIPEFITTERS

Installation, repair, replacement, alteration or maintenance of all plumbing, heating, cooling and piping. *License required per Connecticut General Statutes: P-1,2,6,7,8,9 J1,2,3,4 SP-1,2 S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4.

□ POWER EQUIPMENT OPERATORS

Operates several types of power construction equipment such as compressors, pumps, hoists, derricks, cranes, shovels, tractors, scrapers or motor graders, etc. Repairs and maintains equipment. *License required, crane operators only, per Connecticut General Statutes.

□ ROOFERS

Covers roofs with composition shingles or sheets, wood shingles, slate or asphalt and gravel to waterproof roofs, including preparation of surface. (demolition or removal of any type of roofing and or clean-up of any and all areas where a roof is to be relaid.)

☐ SHEETMETAL WORKERS

Fabricate, assembles, installs and repairs sheetmetal products and equipment in such areas as ventilation, air-conditioning, warm air heating, restaurant equipment, architectural sheet metal work, sheetmetal roofing, and aluminum gutters. Fabrication, handling, assembling, erecting, altering, repairing, etc. of coated metal material panels and composite metal material panels when used on building exteriors and interiors as soffits, facia, louvers, partitions, canopies, cornice, column covers, awnings, beam covers, cladding, sun shades, lighting troughs, spires, ornamental roofing, metal ceilings, mansards, copings, ornamental and ventilation hoods, vertical and horizontal siding panels, trim, etc. The sheet metal classification also applies to the vast variety of coated metal material panels and composite metal material panels that have evolved over the years as an alternative to conventional ferrous and non-ferrous metals like steel, iron, tin, copper, brass, bronze, aluminum, etc. Fabrication, handling, assembling, erecting, altering, repairing, etc. of architectural metal roof, standing seam roof, composite metal roof, metal and composite bathroom/toilet partitions, aluminum gutters, metal and composite lockers and shelving, kitchen equipment, and walk-in coolers. To include testing and air –balancing ancillary to installation and construction.

□ SPRINKLER FITTERS

Installation, alteration, maintenance and repair of fire protection sprinkler systems. *License required per Connecticut General Statutes: F-1, 2, 3, 4.

☐ <u>TILE MARBLE AND TERRAZZO FINISHERS</u>

Assists and tends the tile setter, marble mason and terrazzo worker in the performance of their duties.

☐ TRUCK DRIVERS

~How to pay truck drivers delivering asphalt is under REVISION~

Truck Drivers are requires to be paid prevailing wage for time spent "working" directly on the site. These drivers remain covered by the prevailing wage for any time spent transporting between the actual construction location and facilities (such as fabrication, plants, mobile factories, batch plant, borrow pits, job headquarters, tool yards, etc.) dedicated exclusively, or nearly so, to performance

of the contract or project, which are so located in proximity to the actual construction location that it is reasonable to include them. *License required, drivers only, per Connecticut General Statutes.

For example:

- Material men and deliverymen are not covered under prevailing wage as long as they are not directly involved in the construction process. If, they unload the material, they would then be covered by prevailing wage for the classification they are performing work in: laborer, equipment operator, etc.
- Hauling material off site is not covered provided they are not dumping it at a location outlined above.
- Driving a truck on site and moving equipment or materials on site would be considered covered work, as this is part of the construction process.

 \square Any questions regarding the proper classification should be directed to:

Public Contract Compliance Unit Wage and Workplace Standards Division Connecticut Department of Labor 200 Folly Brook Blvd, Wethersfield, CT 06109 (860) 263-6543.

Connecticut Department of Labor Wage and Workplace Standards Division FOOTNOTES

 \Box Please Note: If the "Benefits" listed on the schedule for the following occupations includes a letter(s) (+ a or + a+b for instance), refer to the information below.

Benefits to be paid at the appropriate prevailing wage rate for the listed occupation.

If the "Benefits" section for the occupation lists only a dollar amount, disregard the information below.

Bricklayers, Cement Masons, Cement Finishers, Concrete Finishers, Stone Masons (Building Construction) and (Residential- Hartford, Middlesex, New Haven, New London and Tolland Counties)

a. Paid Holiday: Employees shall receive 4 hours for Christmas Eve holiday provided the employee works the regularly scheduled day before and after the holiday. Employers may schedule work on Christmas Eve and employees shall receive pay for actual hours worked in addition to holiday pay.

Elevator Constructors: Mechanics

- a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Christmas Day, plus the Friday after Thanksgiving.
- b. Vacation: Employer contributes 8% of basic hourly rate for 5 years or more of service or 6% of basic hourly rate for 6 months to 5 years of service as vacation pay credit.

Glaziers

a. Paid Holidays: Labor Day and Christmas Day.

Power Equipment Operators

(Heavy and Highway Construction & Building Construction)

a. Paid Holidays: New Year's Day, Good Friday, Memorial day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday. Holidays falling on Saturday may be observed on Saturday, or if the employer so elects, on the preceding Friday.

Ironworkers

a. Paid Holiday: Labor Day provided employee has been on the payroll for the 5 consecutive work days prior to Labor Day.

Laborers (Tunnel Construction)

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. No employee shall be eligible for holiday pay when he

fails, without cause, to work the regular work day preceding the holiday or the regular work day following the holiday.

Roofers

a. Paid Holidays: July 4th, Labor Day, and Christmas Day provided the employee is employed 15 days prior to the holiday.

Sprinkler Fitters

a. Paid Holidays: Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day, provided the employee has been in the employment of a contractor 20 working days prior to any such paid holiday.

Truck Drivers

(Heavy and Highway Construction & Building Construction)

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas day, and Good Friday, provided the employee has at least 31 calendar days of service and works the last scheduled day before and the first scheduled day after the holiday, unless excused.

Rev. 7/1/19

SEE BELOW FOR STATE WAGE RATES

Project: Hall Memorial Library Parking Lot & Sidewalk Improvements

Minimum Rates and Classifications for Heavy/Highway Construction

ID#: 23-48033 Connecticut Department of Labor
Wage and Workplace Standards Division

By virtue of the authority vested in the Labor Commissioner under provisions of Section 31-53 of the General Statutes of Connecticut, as amended, the following are declared to be the prevailing rates and welfare payments and will apply only where the contract is advertised for bid within 20 days of the date on which the rates are established. Any contractor or subcontractor not obligated by agreement to pay to the welfare and pension fund shall pay this amount to each employee as part of his/her hourly wages.

Project Number: Project Town: Ellington

State#: FAP#:

Project: Hall Memorial Library Parking Lot & Sidewalk Improvements

CLASSIFICATION	Hourly Rate	Benefits
1) Boilermaker	44.46	28.51
1a) Bricklayer, Cement Masons, Cement Finishers, Plasterers, Stone Masons	39.92	34.47
2) Carpenters, Piledrivermen	36.07	26.15
2a) Diver Tenders	36.07	26.15
3) Divers	44.53	26.15
03a) Millwrights	37.02	27.66
4) Painters: (Bridge Construction) Brush, Roller, Blasting (Sand, Water, etc.), Spray	55.0	23.75
4a) Painters: Brush and Roller	37.22	23.40
4b) Painters: Spray Only	40.22	23.40

As of: May 11, 2023

4c) Painters: Steel Only	39.22	23.40
4d) Painters: Blast and Spray	40.22	23.40
4e) Painters: Tanks, Tower and Swing	39.22	23.40
4f) Elevated Tanks (60 feet and above)	46.22	23.40
5) Electrician (Trade License required: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9)	41.75	31.47+3% of gross wage
6) Ironworkers: Ornamental, Reinforcing, Structural, and Precast Concrete Erection	39.7	38.77 + a
7) Plumbers (Trade License required: (P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2) and Pipefitters (Including HVAC Work) (Trade License required: S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4 G-1, G-2, G-8, G-9)	47.03	34.05
LABORERS		
8) Group 1: General Laborers and concrete specialist	33.5	25.59
8) Group 1a: Acetylene Burners (Hours worked with a torch)	34.5	25.59
9) Group 2: Chain saw operators, fence and guard rail erectors, pneumatic tool operators, powdermen	33.75	25.59
10) Group 3: Pipelayers	34.0	25.59
11) Group 4: Jackhammer/Pavement breaker (handheld); mason tenders (cement/concrete), catch basin builders, asphalt rakers, air track operators, block paver, curb setter and forklift operators	34.0	25.59

12) Group 5: Toxic waste removal (non-mechanical systems)	35.5	25.59
13) Group 6: Blasters	35.25	25.59
Group 7: Asbestos/lead removal, non-mechanical systems (does not include leaded joint pipe)	36.5	25.59
Group 8: Traffic control signalmen	20.1	25.59
Group 9: Hydraulic Drills	34.25	25.59
Group 10: Toxic Waste Removers A or B With PPE	36.5	25.59
LABORERS (TUNNEL CONSTRUCTION, FREE AIR). Shield Drive and Liner Plate Tunnels in Free Air		
13a) Miners, Motormen, Mucking Machine Operators, Nozzle Men, Grout Men, Shaft & Tunnel Steel & Rodmen, Shield & Erector, Arm Operator, Cable Tenders	35.73	25.59 + a
13b) Brakemen, Trackmen, Miners' Helpers and all other men	34.76	25.59 + a
CLEANING, CONCRETE AND CAULKING TUNNEL		
14) Concrete Workers, Form Movers, and Strippers	34.76	25.59 + a
15) Form Erectors	35.09	25.59 + a
ROCK SHAFT LINING, CONCRETE, LINING OF SAME AND TUNNEL IN FREE AIR:		
16) Brakemen, Trackmen, Tunnel Laborers, Shaft Laborers, Miners Helpers	34.76	25.59 + a

As of:

May 11, 2023

17) Laborers Topside, Cage Tenders, Bellman	34.65	25.59 + a
18) Miners	35.73	25.59 + a
TUNNELS, CAISSON AND CYLINDER WORK IN COMPRESSED AIR:		
18a) Blaster	42.22	25.59 + a
19) Brakemen, Trackmen, Groutman, Laborers, Outside Lock Tender, Gauge Tenders	42.02	25.59 + a
20) Change House Attendants, Powder Watchmen, Top on Iron Bolts	40.04	25.59 + a
21) Mucking Machine Operator, Grout Boss, Track Boss	42.81	25.59 + a
TRUCK DRIVERS(*see note below)		
Two Axle Trucks, Helpers	32.16	30.51 + a
Three Axle Trucks; Two Axle Ready Mix	32.27	30.51 + a
Three Axle Ready Mix	32.33	30.51 + a
Four Axle Trucks	32.39	30.51 + a
Four Axle Ready-Mix	32.44	30.51 + a
Heavy Duty Trailer (40 tons and over)	34.66	30.51 + a

Specialized earth moving equipment other than conventional type on-the road trucks and semi-trailer (including Euclids)	32.44	30.51 + a
Heavy Duty Trailer (up to 40 tons)	33.39	30.51 + a
Snorkle Truck	32.54	30.51 + a
POWER EQUIPMENT OPERATORS		
Group 1: Crane Handling or Erecting Structural Steel or Stone, Hoisting Engineer (2 drums or over). (Trade License Required)	52.78	27.80 + a
Group 1a: Front End Loader (7 cubic yards or over); Work Boat 26 ft. and over.	48.37	27.80 + a
Group 2: Cranes (100 ton rate capacity and over); Bauer Drill/Caisson. (Trade License Required)	52.41	27.80 + a
Group 2a: Cranes (under 100 ton rated capacity).	51.51	27.80 + a
Group 2b: Excavator over 2 cubic yards; Pile Driver (\$3.00 premium when operator controls hammer).	48.0	27.80 + a
Group 3: Excavator; Gradall; Master Mechanic; Hoisting Engineer (all types of equipment where a drum and cable are used to hoist or drag material regardless of motive power of operation), Rubber Tire Excavator (Drott-1085 or similar); Grader Operator; Bulldozer Fine Grade (slopes, shaping, laser or GPS, etc.). (Trade License Required)	47.1	27.80 + a
Group 4: Trenching Machines; Lighter Derrick; CMI Machine or Similar; Koehring Loader (Skooper).	46.64	27.80 + a
Group 5: Specialty Railroad Equipment; Asphalt Paver; Asphalt Spreader; Asphalt Reclaiming Machine; Line Grinder; Concrete Pumps; Drills with Self Contained Power Units; Boring Machine; Post Hole Digger; Auger; Pounder; Well Digger; Milling Machine (over 24" mandrel)	45.92	27.80 + a

Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller.	45.92	27.80 + a
Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	45.55	27.80 + a
Group 7: Asphalt Roller; Concrete Saws and Cutters (ride on types); Vermeer Concrete Cutter; Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24" and under Mandrel)	45.14	27.80 + a
Group 8: Mechanic, Grease Truck Operator, Hydroblaster, Barrier Mover, Power Stone Spreader; Welder; Work Boat under 26 ft.; Transfer Machine.	44.67	27.80 + a
Group 9: Front End Loader (under 3 cubic yards), Skid Steer Loader regardless of attachments (Bobcat or Similar); Fork Lift, Power Chipper; Landscape Equipment (including hydroseeder), Vacuum Excavation Truck and Hydrovac Excavation Truck (27 HG pressure or greater).	44.14	27.80 + a
Group 10: Vibratory Hammer, Ice Machine, Diesel and Air Hammer, etc.	41.69	27.80 + a
Group 11: Conveyor, Earth Roller; Power Pavement Breaker (whiphammer), Robot Demolition Equipment.	41.69	27.80 + a
Group 12: Wellpoint Operator.	41.61	27.80 + a
Group 13: Compressor Battery Operator.	40.92	27.80 + a
Group 14: Elevator Operator; Tow Motor Operator (Solid Tire No Rough Terrain).	39.54	27.80 + a
Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	39.06	27.80 + a
Group 16: Maintenance Engineer.	38.28	27.80 + a

As of: May 11, 2023

Group 17: Portable Asphalt Plant Operator; Portable Crusher Plant Operator; Portable Concrete Plant Operator., Portable Grout Plant Operator, Portable Water Filtration Plant Operator.	43.46	27.80 + a
Group 18: Power Safety Boat; Vacuum Truck; Zim Mixer; Sweeper; (minimum for any job requiring CDL license).	40.54	27.80 + a
**NOTE: SEE BELOW		
LINE CONSTRUCTION(Railroad Construction and Maintenance)		
20) Lineman, Cable Splicer, Technician	48.19	6.5% + 22.00
21) Heavy Equipment Operator	42.26	6.5% + 19.88
22) Equipment Operator, Tractor Trailer Driver, Material Men	40.96	6.5% + 19.21
23) Driver Groundmen	26.5	6.5% + 9.00
23a) Truck Driver	40.96	6.5% + 17.76
LINE CONSTRUCTION		
24) Driver Groundmen	30.92	6.5% + 9.70
25) Groundmen	22.67	6.5% + 6.20
26) Heavy Equipment Operators	37.1	6.5% + 10.70
27) Linemen, Cable Splicers, Dynamite Men	41.22	6.5% + 12.20

As of:

May 11, 2023

Welders: Rate for craft to which welding is incidental.

*Note: Hazardous waste removal work receives additional \$1.25 per hour for truck drivers.

**Note: Hazardous waste premium \$3.00 per hour over classified rate

Crane with 150 ft. boom (including jib) - \$1.50 extra Crane with 200 ft. boom (including jib) - \$2.50 extra Crane with 250 ft. boom (including jib) - \$5.00 extra Crane with 300 ft. boom (including jib) - \$7.00 extra Crane with 400 ft. boom (including jib) - \$10.00 extra

All classifications that indicate a percentage of the fringe benefits must be calculated at the percentage rate times the "base hourly rate".

Apprentices duly registered under the Commissioner of Labor's regulations on "Work Training Standards for Apprenticeship and Training Programs" Section 31-51-d-1 to 12, are allowed to be paid the appropriate percentage of the prevailing journeymen hourly base and the full fringe benefit rate, providing the work site ratio shall not be less than one full-time journeyperson instructing and supervising the work of each apprentice in a specific trade.

~~Connecticut General Statute Section 31-55a: Annual Adjustments to wage rates by contractors doing state work ~~

The Prevailing wage rates applicable to this project are subject to annual adjustments each July 1st for the duration of the project.

Each contractor shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.

It is the contractor's responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's website.

The annual adjustments will be posted on the Department of Labor's Web page:

www.ct.gov/dol. For those without internet access, please contact the division listed below.

The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project.

All subsequent annual adjustments will be posted on our Web Site for contractor access.

Contracting Agencies are under no obligation pursuant to State labor law to pay any increase due to the annual adjustment provision.

Effective October 1, 2005 - Public Act 05-50: any person performing the work of any mechanic, laborer, or worker shall be paid prevailing wage

All Person who perform work ON SITE must be paid prevailing wage for the appropriate mechanic, laborer, or worker classification.

All certified payrolls must list the hours worked and wages paid to All Persons who perform work ON SITE regardless of their ownership i.e.: (Owners, Corporate Officers, LLC Members, Independent Contractors, et. al)

Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

~~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 clause (29 CFR 5.5 (a) (1) (ii)).

Please direct any questions which you may have pertaining to classification of work and payment of prevailing wages to the Wage and Workplace Standards Division, telephone (860)263-6790.

As of: May 11, 2023

COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES CONTRACT COMPLIANCE REGULATIONS NOTIFICATION TO BIDDERS

(Revised 09/3/15)

The contract to be awarded is subject to contract compliance requirements mandated by Sections 4a-60 and 4a-60a of the Connecticut General Statutes; and, when the awarding agency is the State, Sections 46a-71(d) and 46a-81i(d) of the Connecticut General Statutes. There are Contract Compliance Regulations codified at Section 46a-68j-21 through 43 of the Regulations of Connecticut State Agencies, which establish a procedure for awarding all contracts covered by Sections 4a-60 and 46a-71(d) of the Connecticut General Statutes.

According to Section 46a-68j-30(9) of the Contract Compliance Regulations, every agency awarding a contract subject to the contract compliance requirements has an obligation to "aggressively solicit the participation of legitimate minority business enterprises as bidders, contractors, subcontractors and suppliers of materials." "Minority business enterprise" is defined in Section 4a-60 of the Connecticut General Statutes as a business wherein fifty-one percent or more of the capital stock, or assets belong to a person or persons: "(1) Who are active in daily affairs of the enterprise; (2) who have the power to direct the management and policies of the enterprise; and (3) who are members of a minority, as such term is defined in subsection (a) of Section 32-9n." "Minority" groups are defined in Section 32-9n of the Connecticut General Statutes as "(1) Black Americans . . . (2) Hispanic Americans . . . (3) persons who have origins in the Iberian Peninsula . . . (4)Women . . . (5) Asian Pacific Americans and Pacific Islanders; (6) American Indians . . ." An individual with a disability is also a minority business enterprise as provided by Section 4a-60g of the Connecticut General Statutes. The above definitions apply to the contract compliance requirements by virtue of Section 46a-68j-21(11) of the Contract Compliance Regulations.

The awarding agency will consider the following factors when reviewing the bidder's qualifications under the contract compliance requirements:

- (a) the bidder's success in implementing an affirmative action plan;
- (b) the bidder's success in developing an apprenticeship program complying with <u>Sections 46a-68-1 to 46a-68-17</u> of the Administrative Regulations of Connecticut State Agencies, inclusive;
- (c) the bidder's promise to develop and implement a successful affirmative action plan;
- (d) the bidder's submission of employment statistics contained in the "Employment Information Form", indicating that the composition of its workforce is at or near parity when compared to the racial and sexual composition of the workforce in the relevant labor market area; and
- (e) the bidder's promise to set aside a portion of the contract for legitimate minority business enterprises. See Section 46a-68j-30(10)(E) of the Contract Compliance Regulations.

INSTRUCTIONS AND OTHER INFORMATION

The following <u>BIDDER CONTRACT COMPLIANCE MONITORING REPORT</u> must be completed in full, signed, and submitted with the bid for this contract. The contract awarding agency and the Commission on Human Rights and Opportunities will use the information contained thereon to determine the bidders compliance to <u>Sections 4a-60</u> and <u>4a-60a</u> CONN. GEN. STAT., and <u>Sections 46a-68j-23</u> of the Regulations of Connecticut State Agencies regarding equal employment opportunity, and the bidder's good faith efforts to include minority business enterprises as subcontractors and suppliers for the work of the contract.

1) Definition of Small Contractor

Section 4a-60g CONN. GEN. STAT. defines a small contractor as a company that has been doing business under the same management and control and has maintained its principal place of business in Connecticut for a one year period immediately prior to its application for certification under this section, had gross revenues not exceeding fifteen million dollars in the most recently completed fiscal year, and at least fifty-one percent of the ownership of which is held by a person or persons who are active in the daily affairs of the company, and have the power to direct the management and policies of the company, except that a nonprofit corporation shall be construed to be a small contractor if such nonprofit corporation meets the requirements of subparagraphs (A) and (B) of subdivision 4a-60g CONN. GEN. STAT.

MANAGEMENT: Managers plan, organize, direct, and BUILDING AND GROUNDS CLEANING AND control the major functions of an organization through MAINTENANCE: This category includes occupations subordinates who are at the managerial or supervisory level. involving landscaping, housekeeping, and janitorial They make policy decisions and set objectives for the services. Job titles found in this category include company or departments. They are not usually directly supervisors of landscaping or housekeeping, janitors, involved in production or providing services. Examples maids, grounds maintenance workers, and pest control include top executives, public relations managers, managers of operations specialties (such as financial, CONSTRUCTION AND human resources, or purchasing managers), and construction category includes construction trades and related and engineering managers.

BUSINESS AND FINANCIAL OPERATIONS: occupations include managers and professionals who work laborers, electricians, plumbers (and related trades), with the financial aspects of the business. These occupations include accountants and auditors, purchasing agents, management analysts, labor relations specialists, and budget, painters. Paving, surfacing, and tamping equipment credit, and financial analysts.

MARKETING AND SALES: Occupations related to the floor and tile installers and finishers are also included in act or process of buying and selling products and/or this category. First line supervisors, foremen, and helpers services such as sales engineer, retail sales workers and in these trades are also grouped in this category. sales representatives including wholesale.

LEGAL OCCUPATIONS: In-House Counsel who is charged with providing legal advice and services in regards to legal issues that may arise during the course of standard business practices. This category also includes assistive legal occupations such as paralegals, legal assistants.

COMPUTER SPECIALISTS: Professionals responsible for the computer operations within a company are grouped in this category. Examples of job titles in this category include computer programmers, software engineers, database administrators, computer scientists, systems analysts, and computer support specialists

ARCHITECTURE AND ENGINEERING: Occupations related to architecture, surveying, engineering, and drafting are included in this category. Some of the job titles in this category include electrical and electronic engineers, surveyors, architects, drafters, mechanical engineers, materials engineers, mapping technicians, and civil engineers.

OFFICE AND ADMINISTRATIVE SUPPORT: All clerical-type work is included in this category. These jobs involve the preparing, transcribing, and preserving of written miscellaneous material moving workers. communications and records; collecting accounts; gathering PRODUCTION WORKERS: The job titles included in and distributing information; operating office machines and electronic data processing equipment; and distributing mail Job titles listed in this category include telephone operators. bill and account collectors, customer service representatives dispatchers. secretaries and administrative assistants computer operators and clerks (such as payroll, shipping stock, mail and file).

workers.

EXTRACTION: occupations. Job titles found in this category include These boilermakers, masons (all types), carpenters, construction roofers, sheet metal workers, elevator installers, hazardous materials removal workers, paperhangers, and operators; drywall and ceiling tile installers; and carpet,

INSTALLATION, MAINTENANCE AND REPAIR: Occupations involving the installation, maintenance, and repair of equipment are included in this group. Examples of job titles found here are heating, ac, and refrigeration mechanics and installers; telecommunication line installers and repairers; heavy vehicle and mobile equipment service technicians and mechanics; small engine mechanics; security and fire alarm systems installers; electric/electronic repair, industrial, utility and transportation equipment; millwrights; riggers; and manufactured building and mobile home installers. First line supervisors, foremen, and helpers for these jobs are also included in the category.

MATERIAL MOVING WORKERS: The job titles included in this group are Crane and tower operators; dredge, excavating, and lading machine operators; hoist and winch operators; industrial truck and tractor operators; cleaners of vehicles and equipment; laborers and freight, stock, and material movers, hand; machine feeders and offbearers; packers and packagers, hand; pumping station operators: refuse and recyclable material collectors: and

this category are chemical production machine setters, operators and tenders; crushing/grinding workers; cutting workers; inspectors, testers sorters, samplers, weighers; precious stone/metal workers; painting workers; cementing/gluing machine operators and tenders; etchers/engravers; molders, shapers and casters except for metal and plastic; and production workers.

Definition of Racial and Ethnic Terms (as used in Part IV Bidder Employment Information) (Page 3)

White (not of Hispanic Origin)-All persons having origins in any of the original peoples of Europe, North Africa, or the Middle East.

Black (not of Hispanic Origin)-All persons having origins in any of the Black racial groups of Africa.

Hispanic- All persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

Asian or 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. This area includes China, India, Japan, Korea, the Philippine Islands, and Samoa. American Indian or Alaskan Native- All persons having origins in any of the original peoples of North America, and who maintain cultural identification through tribal affiliation or community recognition.

BIDDER CONTRACT COMPLIANCE MONITORING REPORT

PART 1 – Bidder Information

Company Name:	Bidder Federal Employer
Street Address:	Identification Number:
City & State:	Or
Chief Executive:	Social Security Number:
Major Business Activity:	Bidder Identification
(brief description)	(response optional/definitions on page 1)
	-Bidder is a small contractor? Yes No -Bidder is a minority business enterprise? Yes No (If yes, check ownership category) Black Hispanic Asian American American Indian/Alaskan Native Iberian Peninsula Individual(s) with a Physical Disability Female -Bidder is certified as above by State of CT? Yes No
Bidder Parent Company:	
(If any)	
Other Locations in CT:	
(If any)	

PART II - Bidder Nondiscrimination Policies and Procedures	
1. Does your company have a written Affirmative	7. Do all of your company contracts and purchase orders contain
Action/Equal Employment Opportunity statement posted on	non-discrimination statements as required by Sections 4a-60 &
company bulletin boards?	4a-60a Conn. Gen. Stat.?
Yes No	Yes No
2. Does your company have the state-mandated sexual	8. Do you, upon request, provide reasonable accommodation
harassment prevention in the workplace policy posted on	to employees, or applicants for employment, who have
company bulletin boards?	physical or mental disability?
Yes No	Yes No
3. Do you notify all recruitment sources in writing of your	9. Does your company have a mandatory retirement age for all
company's Affirmative Action/Equal Employment Opportunity	employees?
employment policy? Yes No	Yes No
4. Do your company advertisements contain a written statement	10. If your company has 50 or more employees, have you provided at
that you are an Affirmative Action/Equal Opportunity Employer?	least two (2) hours of sexual harassment training to all of your
Yes No	supervisors? Yes No N/A
5. Do you notify the Ct. State Employment Service of all	11. If your company has apprenticeship programs, do they meet the
employment openings with your company?	Affirmative Action/Equal Employment Opportunity requirements of
Yes No	the apprenticeship standards of the Ct. Dept. of Labor?
	Yes No N/A
6. Does your company have a collective bargaining	12. Does your company have a written affirmative action Plan?
agreement with workers?	Yes No
Yes No	If no, please explain.
6a. If yes, do the collective bargaining agreements contain	r, r
non-discrimination clauses covering all workers? Yes No	
	13. Is there a person in your company who is responsible for equal
6b. Have you notified each union in writing of your	employment opportunity? Yes No
commitments under the nondiscrimination requirements	If yes, give name and phone number:
of contracts with the state of CT?	7 · · · , 6 · · · · · · · · · · · · · · ·
Yes No	

- 1. Will the work of this contract include subcontractors or suppliers? Yes No
 - 1a. If yes, please list all subcontractors and suppliers and report if they are a small contractor and/or a minority business enterprise. (defined on page 1 / use additional sheet if necessary)

1b. Will the work of this contract require additional subcontractors or suppliers other than those identified in 1a. above? Yes No

PART IV - Bidder Employment Information

Date:

PART IV - Bidder E					Date			•			
JOB CATEGORY*	OVERALL TOTALS	WHITE (1 Hispanic of			not of Hispanic rigin)	HISPANIC		ASIAN or PACIFIC ISLANDER		AMERICAN INDIAN or ALASKAN NATIVE	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Management											
Business & Financial Ops											
Marketing & Sales											
Legal Occupations											
Computer Specialists											
Architecture/Engineering											
Office & Admin Support											
Bldg/ Grounds Cleaning/Maintenance											
Construction & Extraction											
Installation , Maintenance & Repair											
Material Moving Workers											
Production Occupations											
TOTALS ABOVE											
Total One Year Ago											
FORMAL ON THE JOB TRAINEES (ENTER FIGURES FOR THE SAME CATEGORIES AS ARE SHOWN ABOVE)											
Apprentices											
Trainees											

^{*}NOTE: JOB CATEGORIES CAN BE CHANGED OR ADDED TO (EX. SALES CAN BE ADDED OR REPLACE A CATEGORY NOT USED IN YOUR COMPANY)

PART V - Bidder H	aring a	na Kec	Tultillelli F Factic	CS	(Page 5)
Which of the following (Check yes or no, and re			are used by you?	Check (X) any of the below listed requirements that you use as a hiring qualification (X)	3. Describe below any other practices or actions that you take which show that you hire, train, and promote employees without discrimination
SOURCE	YES	NO	% of applicants provided by source		
State Employment Service				Work Experience	
Private Employment Agencies				Ability to Speak or Write English	
Schools and Colleges				Written Tests	
Newspaper Advertisement				High School Diploma	
Walk Ins				College Degree	
Present Employees				Union Membership	
Labor Organizations				Personal Recommendation	
Minority/Community Organizations				Height or Weight	
Others (please identify)				Car Ownership	
				Arrest Record	
				Wage Garnishments	

(Date Signed)

(Telephone)

(Title)

(Signature)

NOTICE TO CONTRACTOR – POTENTIAL MODIFIED AWARD SCHEDULE

The contractor is hereby given notice that this contract may not be awarded until all Federal and State financial approvals have been received. If all financial approvals are not received, this contract may be withdrawn and re-advertised at the direction of the Municipality, in consultation with the State. This shall not be the basis for any claims by any bidder.

STATE OF CONNECTICUT

EXHIBIT 4

Certificate of Compliance with Connecticut General Statute Section 31 - 57b

I hereby certify that all of the statements herein contained below have been examined by me, and to the best of my knowledge and belief are true and correct.

The			HAS / HAS NO	T			
	Company Name		(Cross out Non-applicat	ole)			
standard, order or regulation cited in accordance with the citation and such citation h	r more willful or serious or serious on promulgated pursuant to such act, e provisions of any State Occupation as not been set aside following appear received one or more criminal convenience.	, during the nal Safety a eal to the ap	three year period preceding the and Health Act of 1970, and not a peropriate agency of court having	bid, provided such violations were abated within the time fixed by the g jurisdiction or HAS / HAS NOT			
The list of violations (if app	plicable) is attached.						
	(Name of Firm,	Organizat	ion or Corporation)				
Signed:		Vritten Sign	atuva				
	n	rillen Sign	ature:				
	Name Typed:		(Corporation Seal)				
Title:	(Title o	(Title of Above Person, typed)					
Dated:							
State of)						
County of)	ss:	A.D., 20				
)						
Sworn to and personally ap	peared before me for the above,		(Name of Firm, Organization, C	Corporation)			
Signer and Sealer of the for	regoing instrument of and acknowled	dged the sa	me to be the free act and deed of				
(Name of Person appearing	g in front of Notary or Clerk)	, and his	s/her free act and deed as				
(Title of Person appearing	in front of Notary or Clerk)	·					
My Commission Expires:			(Notary Public)	(Seal)			

SECTION 01200

SUMMARY OF WORK

<u>1.00 - GENERAL</u>

1.01 RELATED DOCUMENTS

A. Drawings and General Provisions of the Contract, including General and Supplementary Conditions and Requirements of Division 1, apply to the work specified in this Section.

1.02 GENERAL REQUIREMENTS

- A. The project Work includes but is not necessarily limited to the following general requirements. Compliance with these General Requirements shall be considered incidental to the completion of the Unit Price Work outlined below and will not be compensated for separately.
 - 1. Verify location of underground utilities, including those utilities, active or abandoned, which may not be shown on the plans. Call-Before-You-Dig 1-800-922-4455. Notify Engineer of any underground features discovered during construction.
 - 2. The Contractor shall perform work so as to protect existing utilities including overhead wires, poles, guy wires, structures, and underground services. Conflicts between the proposed work and existing services such as gas, water, electric or other services, shall be reported to the Engineer immediately.
 - 3. Obtain encroachment permit from the CT DOT for work in the Main Street and Maple Street Right-of-Way. Pay required application fee of \$100.00 and obtain required bond.
 - 4. Provide and maintain protective barriers, barricades and construction warning signs as necessary to protect pedestrians, working personnel, vehicles, private property, and work as it is installed.
 - 5. Attend a pre-construction meeting with the Owner and Engineer after utilities have been marked and any discrepancies have been noted. Administer weekly job meetings with the Owner and Engineer.
 - 6. Provide submittals per Section 1300 including but not limited to schedule of submittals, schedule of values, construction progress schedule, material certificates, cut sheets and shop drawings to Engineer for approval prior to ordering. Submit manufacturer's shop drawings for all pre-cast structures.

- 7. Provide Owner with a report from an approved independent testing laboratory with a sieve analysis and Standard Proctor maximum dry density of samples from each material source to be used for review and approval.
- 8. Subcontract an independent testing company, to be approved by the Owner, to complete specified field quality assurance and quality control testing for soil compaction and concrete strength.
- 9. Coordinate with the Ellington Police Department to provide uniformed officers for traffic control when work disrupts traffic.
- 10. Remove and dispose of all excess or unsuitable material off-site in a proper manner. The site shall be kept clean and free of debris or rubbish.
- 11. Notify the Engineer immediately if any conflicts or discrepancies are encountered.
- 12. Restore, repair, or replace all features disturbed during construction.
- 13. Sweep roadway and driveways each day as required. Disturbed areas shall be sprinkled with water as required to control dust. All rubbish and debris shall be removed from the site each day and be properly disposed of by the Contractor.
- 14. Provide record documents, guarantees, warranties and bonds in accordance with Project Closeout procedures in Section 1730.

1.03 UNIT PRICE WORK

- A. Unit Prices include all costs for overhead, profit, bond, materials, labor, supervision, equipment, transportation, testing, and disposal required to complete the work item.
- B. Unit Price work will be measured in the field by the Contractor and verified by the Owner's Representative. Only quantities approved by the Owner's Representative will be authorized for payment as specified in the Agreement. The unit price work is summarized below:
 - 1. Mobilization/Demobilization: Mobilize equipment and materials to the site necessary for the completion of the project work. Remove (demobilize) all equipment and materials upon completion of work.
 - 2. Temporary Facilities: Provide sanitary and storage facilities during construction. These temporary facilities shall be located at a location to be approved by the Owner.
 - 3. Uniformed Officers: Provide uniformed local police officers and cruisers for traffic control when work disrupts traffic in the adjacent streets.

- 4. Maintenance & Protection of Traffic: Provide appropriate traffic controls, including signs, equipment and barriers, to maintain safe and adequate vehicular access during the period of construction. Maintain access to residences and businesses.
- 5. Construction Staking: Provide all construction layout and reference staking of all work.
- 6. Silt Sack: Install sediment bags (Silt Sack or Equal) at seven (7) catch basins (existing and new) downgradient of earth disturbance. Maintain sediment bags during construction. Upon stabilization of site, remove and dispose of sediment bags and clean catch basins.
- 7. Sediment Barrier: Install and maintain sediment barriers (Silt Fence or Silt Sock) at downgradient edge of site disturbance. Upon stabilization of site, remove and dispose of sediment barrier and accumulated material.
- 8. Removal of Trees, Shrubs, Stumps and Vegetation: Remove existing trees, shrubs, stumps and vegetation to allow for the completion of the Work as shown on the Drawings. Grub stumps. Dispose of all wood, stumps, and debris off-site. Backfill holes left by stump removal w/ sufficient topsoil to blend evenly to surrounding elevations.
- 9. Removal of Materials from Existing Planting Beds: Remove existing mulch, stone, edging, weed control fabric, etc. to allow for replacement with new materials. Dispose of all materials and debris off-site.
- 10. Remove existing turf grass in areas to be established as new planting beds that do not require grading to establish new finish grade.
- 11. Sawcut existing pavement to provide a clean, defect free transition where the new pavement will blend to the existing pavement.
- 12. Demolish existing bituminous curbing. Remove and dispose of asphalt materials off-site in accordance with applicable regulations.
- 13. Demolish sections of existing concrete sidewalks to be replaced. To include sawcut between new and existing pavements, remove and dispose of concrete materials offsite in accordance with applicable regulations.
- 14. Reclaim Pavement: Pulverize and mix existing asphalt and underlying base material. Reclaim to a minimum depth of 10". Fine grade and compact reclaimed aggregate base for new pavement. Stockpile excess for re-use as base in parking expansion area.
- 15. Furnish and install 20 lineal feet of 12" HDPE storm sewer.

- 16. Furnish and install 70 lineal feet of 15" HDPE storm sewer.
- 17. Furnish and install 36 lineal feet of 4" HDPE storm sewer.
- 18. Furnish & install two (2) new catch basins, one with a type CL top and one with a type C top.
- 19. Furnish & install two (2) storm manholes.
- 20. Convert two (2) existing catch basin structures to manholes with solid frames and covers. To include removal and disposal of existing catch basin tops and raising top of structure to match new finish grade.
- 21. Furnish and install subsurface infiltration system consisting of 35 Stormtech SC-740 chambers, crushed stone, header pipe, inspection ports, isolator row and connections to inlet and outlet manholes.
- 22. Core-bore and connection of new pipe to existing catch basins.
- 23. Strip topsoil and stockpile sufficient amount for re-use on-site. Remove excess topsoil from the site.
- 24. Excavation and formation of subgrade for new paved parking lot. Fine grade and compact to form subgrade for new pavement. Stockpile suitable material for re-use on-site in fill area. Remove excess material from the site.
- 25. Spread and compact suitable material generated on-site to form subgrade for new sitting area.
- 26. Furnish and install gravel sub-base for new paved parking lot expansion.
- 27. Spread and compact excess reclaimed aggregate generated from on-site asphalt pavement reclamation as base material for new parking lot expansion.
- 28. Furnish and install additional processed aggregate base to supplement reclaimed aggregate for new paved parking lot expansion.
- 29. Furnish and install 1.5" HMA S1.0 bituminous concrete binder course and 1.5" HMA S.05 bituminous concrete wearing course in new paved parking lot.
- 30. Furnish and install new 6' bituminous lip curbing.
- 31. Install painted payement markings in the parking lots as shown on the Drawings.

- 32. Furnish and install new stenciled concrete sidewalk. To include excavation to subgrade; removal and off-site disposal of excavated material; furnish and install process aggregate base, concrete, stenciled finish & cure.
- 33. Furnish and install the required haunch and steel reinforcement to create and integral curb where concrete sidewalk abuts asphalt pavement.
- 34. Install six (6) detectable warning strips at curb ramps.
- 35. Furnish and install 3' wide recycled asphalt walkway.
- 36. Respread topsoil from stockpile in areas to be finished as landscape islands and/or lawn.
- 37. Turf Establishment: Rake topsoil to remove/break up large pieces and prepare seedbed. Apply lime, fertilizer, seed and mulch to establish a uniform stand of perennial turf grasses.
- 38. Furnish and install bark mulch planting beds in landscape islands, around existing trees to remain, and around the existing building, including min. 3" bark mulch over weed control fabric.
- 39. Furnish and install stone planting bed to replace existing planting bed on north side of library building, including min. 4" round landscape stone over weed control fabric.
- 40. Furnish and install crushed angular stone to stabilize slope along edge of cemetery south of the library building, including min. 4" crushed angular landscape stone over weed control fabric.
- 41. Furnish and install steel edging to surround the recycled asphalt walkway and landscape beds where shown on the drawings.
- 42. Furnish, install and maintain all plantings called for on the Planting Schedule.
- 43. Furnish & install site furnishings called for on the Site Furnishings schedule.
- 44. Furnish & install concrete bases for site furnishings to be installed in landscaped areas. To include excavation to subgrade; removal and off-site disposal of excavated material; furnish and install process aggregate base, concrete, finish & cure.
- 45. Furnish and install five (5) new light poles, bases and fixtures.
- 46. Replace ten (10) light poles and fixtures on existing bases, including connection to existing wiring and removal and disposal of existing pole and fixture.

- 47. Replace two (2) light fixtures on existing poles, including connection to existing wiring and removal and disposal of fixture. Sand and re-paint existing poles.
- 48. Furnish and install conduit and wire to power new pole mounted light fixtures.
- 49. Furnish and install two (2) -4" PVC and two (2) -1" PVC conduits for future electric car charging stations.
- 50. Furnish and install two electric handholes.
- 51. Relocate existing stop sign.
- 52. Apply a cement based skim coat on the wall along the existing library ramp in the vicinity of the proposed sitting area.
- 53. Furnish and install a freestanding segmental block wall around the perimeter of the proposed sitting area at the southeast corner of the library.
- 54. Furnish and install 6' high, heavy duty vinyl screening fence with a wood grain appearance.
- 2.00 PRODUCTS (Not Used)
- 3.00 EXECUTION (Not Used)

END OF SECTION

SECTION 01250

MEASUREMENT & PAYMENT

1.00 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and General Provisions of the Contract, including General and Supplementary Conditions and Requirements of Division 1, apply to the work specified in this Section.

1.02 GENERAL

- A. Unit Prices include all costs for overhead, profit, bond, materials, labor, supervision, equipment, transportation, testing, and disposal required to complete the work item.
- B. Unit Price work will be measured in the field by the Contractor and verified by the Owner's Representative. Only quantities approved by the Owner's Representative will be authorized for payment.

1.03 PAYMENT ITEMS

A. Mobilization/Demobilization

- 1. Payment: Payment will be made at the contract lump sum price for "Mobilization/Demobilization" which shall include all materials, equipment, tools, labor, transportation and all work incidental thereto.
- 2. Measurement: Lump Sum (LS) to be paid in the manner described hereinafter:
 - a. When the first payment estimate is paid, 50% of the lump sum bid price for this item will be certified for payment.
 - b. Upon completion of all work on the project, the remaining 50% of the lump sum bid price for this item will be certified for payment.

B. Temporary Facilities

- 1. Payment: The furnishing and maintenance of Temporary Facilities will be paid for at the Contract lump sum price for "Temporary Facilities" which price shall include all material, equipment, labor, service contracts, permits, related supplies, utility services, illumination, and work incidental thereto.
- 2. Measurement: Lump Sum (LS) to be paid in the manner described hereinafter:

- a. When the first payment estimate is paid upon furnishing facilities, 75% of the lump sum bid price for this item will be certified for payment.
- b. Upon completion of all work on the project, the remaining 25% of the lump sum bid price for this item will be certified for payment.

C. Uniformed Officers

- 1. Payment: The furnishing of uniformed local police officers and cruisers shall be paid by an allowance for "Uniform Officers". The bid shall include a cash allowance for the anticipated cost of this item. Additional traffic control measures including but not limited to signs, barricades, barriers, materials, equipment, tools, labor, and all work incidental the maintenance and protection of traffic is excluded and shall be paid separately in accordance with the item "Maintenance & Protection of Traffic".
- 2. Measurement: Hours (HR) to be paid based on the basis of invoices submitted from the Ellington Police Department in accordance with the percentage of completed project work and the approved project schedule.

D. Maintenance & Protection of Traffic

- 1. Payment: The furnishing and maintenance of Maintenance & Protection of Traffic will be paid at the contract lump sum price for "Maintenance & Protection of Traffic" which shall include all signs, barricades, barriers, materials, equipment, tools, labor, and all work incidental thereto. This item excludes the furnishing of uniformed officers, which will be paid separately in accordance with the item "Uniformed Officers".
- 2. Measurement: Lump Sum (LS) to be paid based on the percentage of completed project work in accordance with the schedule of values.

E. Construction Staking

- 1. Payment: Payment will be made at the contract lump sum price for "Construction Staking" which shall include all materials, equipment, tools, labor, transportation and all work incidental thereto.
- 2. Measurement: Lump Sum (LS) to be paid based on the percentage of completed project work in accordance with the schedule of values.

F. Silt Sacks

1. Payment: Payment will be made at the Contract unit price for each "Silt Sacks" complete in place, which price shall include all materials, equipment,

tools, and labor for installation and maintenance, and all work incidental thereto.

2. Measurement: As separate units (EA) installed and accepted.

G. Sediment Barrier:

- 1. Payment: Payment will be made at the Contract unit price per lineal foot for "Sediment Barrier" which shall include materials, equipment, tools, labor for installation and maintenance, and all work incidental thereto.
- 2. Measurement: Lineal Foot (LF) completed and accepted.
- H. Removal of Trees, Shrubs, Stumps & Vegetation:
 - 1. Payment: Payment will be made at the Contract lump sum price for the "Removal of Trees, Shrubs, Stumps & Vegetation" which price shall include removal and disposal of all trees, shrubs, brush, stumps, etc. necessary for the completion of the work; backfill of hole left by the stump removal; and all materials, equipment, tools, labor and work incidental thereto.
 - 2. Measurement: Lump Sum (LS) to be paid based on the percentage of completed project work in accordance with the schedule of values.
- I. Removal of Materials from Existing Planting Beds:
 - 1. Payment: Payment will be made at the Contract unit price per square foot for the "Removal of Materials from Existing Planting Beds" which price shall include removal and disposal of all stone, mulch, edging, fabric, etc. necessary to allow for replacement with new materials and plants; and all materials, equipment, tools, labor and work incidental thereto.
 - 2. Measurement: Square Foot (SF) of existing planting bed area removed and the work accepted.

J. Turf Removal:

- 1. Payment will be made at the Contract unit price per square foot for "Turf Removal" which price shall include removal and disposal of all turf and grass down to clean topsoil; and all materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: Square Foot (SF) of turf removed and the work accepted.

K. Sawcut Pavement:

- 1. Payment: Payment will be made at the Contract unit price per lineal foot for "Sawcut Pavement" which shall include providing a clean sawcut where new pavement meets existing pavement; and all materials, equipment, tools, labor, and work incidental thereto.
- 2. Measurement: Lineal Foot (LF) completed and accepted.

L. Demolish Existing Bituminous Curb:

- 1. Payment: Payment will be made at the Contract unit price per lineal foot for "Demolish Existing Bituminous Curb" which shall include sawcut, removal, disposal, and materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: Lineal Foot (LF) completed and accepted.

M. Demolish Existing Concrete Walk

- 1. Payment: Payment will be made at the Contract unit price per square yard for "Demolish Existing Concrete Walk" which price shall include sawcut, removal, disposal, and materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: Square Yard (SY) of area of walk removed and the work accepted.

N. Reclaim Existing Bituminous Pavement

- 1. Payment: Payment will be made at the Contract unit price per square yard for "Reclaim Existing Bituminous Pavement" which price shall include pulverization of existing bituminous and base materials to a depth of ten inches (10"), removal of excess material, fine grading, and compaction to establish new subgrade, materials, equipment, tools, labor and work incidental thereto. No additional payments will be made for multiple passes with the pulverizing machine. No separate payments will be made for cleaning the pavement prior to paving; providing protection and doing handwork removal of bituminous concrete around catch basin inlets, manholes, utility valve boxes and any similar structures; and providing protection to underground utilities from the vibration of the milling operation. The costs for these items shall be included in the Contract unit price.
- 2. Measurement: Square Yard (SY) of area from which the milling of bituminous concrete has been completed and the work accepted. No area deductions will be made for minor unmilled areas such as catch basins, manholes, utility boxes or similar structures.

O. 12" HDPE Storm Sewer

- 1. Payment: Payment will be made at the Contract unit price per linear foot for "15" HDPE Storm Sewer" complete in place, which price shall include sawcut, trench excavation, removal and disposal of pavement and surplus materials, pipe connection, bedding material, backfill, compaction testing, materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: Linear Foot (LF) of length of pipe installed and accepted.

P. 15" HDPE Storm Sewer

- 1. Payment: Payment will be made at the Contract unit price per linear foot for "15" HDPE Storm Sewer" complete in place, which price shall include sawcut, trench excavation, removal and disposal of pavement and surplus materials, pipe connection, bedding material, backfill, compaction testing, materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: Linear Foot (LF) of length of pipe installed and accepted.

Q. 4" HDPE Storm Sewer

- 1. Payment: Payment will be made at the Contract unit price per linear foot for "4" HDPE Storm Sewer" complete in place, which price shall include sawcut, trench excavation, removal and disposal of pavement and surplus materials, pipe connection, bedding material, backfill, compaction testing, materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: Linear Foot (LF) of length of pipe installed and accepted.

R. New Catch Basin

- 1. Payment: Payment will be made at the Contract unit price for "Install New Catch Basin" complete in place, which price shall include excavation, removal and disposal of surplus material, backfill to subgrade, compaction testing, materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: As separate units (EA) completed in place and accepted.

S. New Storm Manhole

1. Payment: Payment will be made at the Contract unit price for "Install New Storm Manhole" complete in place, which price shall include excavation, removal and disposal of surplus material, backfill to subgrade, compaction testing, materials, equipment, tools, labor and work incidental thereto.

2. Measurement: As separate units (EA) completed in place and accepted.

T. Convert Existing Catch Basin to Manhole

- 1. Payment: Payment will be made at the Contract unit price for "Convert Existing Catch Basin to Manhole" complete in place, which price shall include pavement sawcut, excavation and removal of pavement and base material, backfill to subgrade, and all materials including new frame and grate of the type specified, equipment, tools, labor and work incidental thereto.
- 2. Measurement: As separate units (EA) completed in place and accepted.

U. Subsurface Infiltration System

- 1. Payment: Payment will be made at the Contract lump sum price for the "Subsurface Infiltration System" which price shall include excavation, removal and disposal of surplus material, bedding and backfill, compaction, pipe connections, and all materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: Lump Sum (LS) to be paid based on the percentage of completed project work in accordance with the schedule of values.

V. Connect New Pipe to Existing Structure

- 1. Payment: Payment will be made at the Contract unit price for "Connect New Pipe to Existing Structure" complete in place, which price shall include pavement sawcut, excavation and removal of pavement and base material, core-bore hole through existing structure wall, pipe connection, backfill to subgrade, and all materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: As separate units (EA) completed in place and accepted.

W. Strip Topsoil

- 1. Payment: Payment will be made at the Contract unit price per square yard for "Strip Topsoil" complete in-place, which price shall include removal of topsoil and separation from subsoil, stockpiling sufficient quantities for re-use onsite, disposal of surplus material, all materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: Square Yards (SY) of area on which the placement of topsoil has been completed and the work accepted.

X. Box-Out for New Parking Lot Expansion

- 1. Payment: Payment will be made at the Contract unit price per square yard for "Box-Out for New Parking Lot Expansion" complete in-place, which price shall include excavation to subgrade, fine grading, compaction, testing, temporary stockpiling, disposal of surplus material, all equipment, tools, labor and work incidental thereto. This item excludes stripping topsoil which shall be paid separately in accordance with the item "Strip Topsoil".
- 2. Measurement: Square Yards (SY) coincident with outside edges of pavement for the new parking lot (excluding interior islands) which has been completed and the work accepted.

Y. Subgrade for New Sitting Area

- 1. Payment: Payment will be made at the Contract unit price per square yard for "Subgrade for New Sitting Area" complete in-place, which price shall include excavation and filling utilizing existing suitable on-site material, compaction, testing and all equipment, tools, labor and work incidental thereto. This item excludes stripping topsoil which shall be paid separately in accordance with the item "Strip Topsoil".
- 2. Measurement: Square Yards (SY) coincident with outside edges of pavement for the new parking lot (excluding interior islands) which has been completed and the work accepted.

Z. Gravel Subbase for Parking Lot Expansion

- 1. Payment: Payment will be made at the Contract unit price per cubic yard for "Gravel Subbase for Parking Lot Expansion" complete in-place, which price shall include all materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: Cubic Yards (CY) as determined by the horizontal limits of the paved parking lot (excluding interior islands) and specified depth as indicated on the plans and verified in the field.

AA. Spread Reclaimed Aggregate Base for Parking Lot Expansion

1. Payment: Payment will be made at the Contract unit price per cubic yard for "Spread Reclaimed Aggregate Base for Parking Lot Expansion" shall include spreading and compacting excess reclaimed aggregate base generated on-site from reclaim of the existing asphalt parking lot complete in-place, which price shall include all materials, equipment, tools, labor and work incidental thereto.

2. Measurement: Cubic Yards (CY) as determined by the horizontal limits of the paved parking lot (excluding interior islands) and specified depth as indicated on the plans and verified in the field.

BB. Processed Aggregate Base for Parking Lot Expansion

- 1. Payment: Payment will be made at the Contract unit price per cubic yard for "Processed Aggregate Base for Parking Lot Expansion" complete in-place, which price shall include all materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: Cubic Yards (CY) as determined by the horizontal limits of the paved parking lot (excluding interior islands) and specified depth as indicated on the plans and verified in the field.

CC. Bituminous Concrete Pavement

- 1. Payment: Payment will be made at the Contract unit price per ton for "Bituminous Concrete Pavement" complete in place, which price shall include all materials, testing, equipment, tools, labor and work incidental thereto. No separate payments will be made for cleaning the pavement prior to paving; doing handwork; repairing surface defects as a result of the Contractors negligence; and providing protection of completed work. The costs for these items shall be included in the Contract unit price.
- 2. Measurement: Net Tons (TON) determined by documented net weight (mass) on delivery tickets provided by the material provider and the work accepted.

DD. Bituminous Lip Curb

- 1. Payment: Payment will be made at the Contract unit price per linear foot for "Bituminous Lip Curb" complete in place, which price shall include all materials, equipment, tools, labor and work incidental thereto. Application of tack coat associated with the installation of the curbing shall not be measured for payment but shall be included in the Contract unit price. No separate payments will be made for cleaning the pavement prior to paving; doing handwork; repairing surface defects as a result of the Contractors negligence; and providing protection of completed work. The costs for these items shall be included in the Contract unit price.
- 2. Measurement: Linear Foot (LF) of length completed and the work accepted.

EE. Pavement Markings

1. Payment: Payment will be made at the Contract lump sum price for "Pavement Markings" complete in place, which price shall include cleaning

pavement, protection during drying, equipment, tools, materials, labor and work incidental thereto.

2. Measurement: Lump Sum (LS) to be paid based on the percentage of completed project work in accordance with the schedule of values for paint applied on pavement and accepted.

FF. Stenciled Concrete Sidewalk

- 1. Payment: Payment will be made at the Contract unit price per square foot for "Stenciled Concrete Sidewalk" complete in place, which price shall include excavation to subgrade, backfill, disposal of surplus material, process aggregate base, materials testing, concrete, color & hardening compounds, paper stencil, finish & cure, equipment, tools, material, labor and work incidental thereto.
- 2. Measurement: Square Feet (SF) completed in place and accepted.

GG. Haunch & Reinforcement for Integral Curb

- 1. Payment: Payment will be made at the Contract unit price per linear foot for "Haunch & Reinforcement for Integral Curb" complete in place, which price shall include excavation, disposal of surplus material, forming, steel reinforcement, concrete, and all equipment, tools, material, labor and work incidental thereto.
- 2. Measurement: Linear Feet (LF) completed in place and accepted.

HH. Detectable Warning Strip

- 1. Payment: Payment will be made at the Contract unit price for each "Detectable Warning Strip" complete in place, which price shall include materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: As separate units (EA) completed in place and accepted.

II. Recycled Asphalt Walkway

- 1. Payment: Payment will be made at the Contract unit price per square foot for "Recycled Asphalt Walkway" complete in place, which price shall include excavation to subgrade, backfill, compaction, disposal of surplus material, equipment, tools, material, labor and work incidental thereto.
- 2. Measurement: Square Feet (SF) completed in place and accepted.

JJ. Respread Topsoil from Stockpile

- 1. Payment: Payment will be made at the Contract unit price per square yard for "Respread Topsoil from Stockpile" which price shall include all equipment, tools, labor and work incidental thereto.
- 2. Measurement: Square Yards (SY) of surface area completed in place and accepted.

KK. Turf Establishment

- 1. Payment: Payment will be made at the Contract unit price per square yard for "Turf Establishment" which price shall include seed, limestone, fertilizer, mulch, materials, maintenance, equipment, tools, labor and work incidental thereto.
- 2. Measurement: Square Yards (SY) of surface area of seeding completed in place and accepted.

LL. Bark Mulch Planting Bed

- 1. Payment: Payment will be made at the Contract unit price per square foot for "Bark Mulch Planting Bed" which price shall include weed control fabric, materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: Square Foot (SF) of area completed in place and accepted.

MM. Round Landscape Stone Planting Bed

- 1. Payment: Payment will be made at the Contract unit price per square foot for "Round Landscape Stone Planting Bed" which price shall include weed control fabric, materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: Square Foot (SF) of area completed in place and accepted.

NN. Crushed Angular Stone

- 1. Payment: Payment will be made at the Contract unit price per square foot for "Crushed Angular Stone" which price shall include weed control fabric, materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: Square Foot (SF) of area completed in place and accepted.

OO. Steel Edging

- 1. Payment: Payment will be made at the Contract unit price per linear foot for "Steel Edging" complete in place, which price shall materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: Linear Feet (LF) completed in place and accepted.

PP. Plantings

- 1. Payment: Payment will be made at the contract lump sum price for "Plantings" which price shall include excavation, removal of excess material, planting soil mixture, planting material, accessory materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: Lump Sum (LS) to be paid based on the percentage of completed plantings in accordance with the schedule of values.

QQ. Site Furnishings

- 1. Payment: Payment will be made at the contract lump sum price for "Site Furnishings" which price shall include procurement, installation, material, accessory materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: Lump Sum (LS) to be paid based on the percentage of completed installation in accordance with the schedule of values.

RR. Concrete Base for Site Furnishings

- 1. Payment: Payment will be made at the Contract unit price per square foot for "Concrete Base for Site Furnishings" complete in place, which price shall include excavation to subgrade, backfill, disposal of surplus material, process aggregate base, materials testing, concrete, finish & cure, equipment, tools, material, labor and work incidental thereto.
- 2. Measurement: Square Feet (SF) completed in place and accepted.

SS. New Light Pole, Base & Fixture

- 1. Payment: Payment will be made at the Contract unit price for each "New Light Pole, Base & Fixture" which price shall include excavation, disposal of surplus material, backfill, and all materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: As separate units (EA) completed in place and accepted.

TT. Replace Light Pole & Fixture on Existing Base

- 1. Payment: Payment will be made at the Contract unit price for each "Replace Light Pole & Fixture on Existing Base" which price shall include materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: As separate units (EA) completed in place and accepted.

UU. Replace Light Fixture on Existing Pole

- 1. Payment: Payment will be made at the Contract unit price for each "Replace Light Fixture on Existing Pole" which price shall include sanding and painting the existing pole, materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: As separate units (EA) completed in place and accepted.

VV. Electrical Conduit & Wiring for Site Lighting

- 1. Payment: Payment will be made at the Contract unit price per lineal foot for "Electrical Conduit & Wiring for Site Lighting" for furnishing and installation of a PVC conduit and wire, which price shall include trenching, backfill, warning tape, connections to existing power source and fixtures; and all materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: Lineal Foot (LF) completed and accepted.

WW. Electrical Conduit for Future EV Charging Stations

- 1. Payment: Payment will be made at the Contract unit price per lineal foot for "Electrical Conduit for Future EV Charging Stations" for furnishing and installation PVC conduit, which price shall include trenching, backfill, warning tape, caps, pull rope; and all materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: Lineal Foot (LF) completed and accepted.

XX. Electrical Handhole

- 1. Payment: Payment will be made at the Contract unit price per lineal foot for "Electrical Handhole" complete in place, which price shall include excavation, removal and disposal of surplus material, backfill to subgrade, compaction testing, materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: As separate units (EA) completed in place accepted.

YY. Relocate Stop Sign

- 1. Payment: Payment will be made at the Contract unit price for each "Relocate Stop Sign" which price shall include materials, equipment, tools, labor and work incidental thereto.
- 2. Measurement: As separate units (EA) completed in place and accepted.

ZZ. Cement Based Skim Coat

- 1. Payment: Payment will be made at the Contract unit price per square foot for "Cement Based Skim Coate" complete in place, which price shall include cleaning, equipment, tools, material, labor and work incidental thereto.
- 2. Measurement: Square Feet (SF) completed in place and accepted.

AAA. Segmental Block Sitting Wall

- 1. Payment: Payment will be made at the Contract unit price per square foot for "Segmental Block Sitting Wall" complete in place, which price shall include excavation to subgrade, bedding, backfill, equipment, tools, material, labor and work incidental thereto.
- 2. Measurement: Square Feet (SF) completed in place and accepted.

BBB. Vinyl Fence

- 1. Payment: Payment will be made at the Contract unit price per square foot for "Vinyl Fence" complete in place, which price shall include equipment, tools, materials, labor and work incidental thereto.
- 2. Measurement: Linear Foot (LF) of length completed and the work accepted.

2.00 PRODUCTS (Not Used)

3.00 EXECUTION (Not Used)

END OF SECTION

SECTION 01300

SUBMITTALS

1.00 GENERAL

1.01 RELATED DOCUMENTS

- A. The General Provisions of the Contract, including General and Supplementary Conditions and Divisions 1 General Requirements, apply to the work specified in this Section.
- B. Prevailing wage requirements.

1.02 SECTION INCLUDES

- A. Schedule of Submittals
- B. Construction Progress Schedule
- C. Schedule of Values
- D. Shop Drawings
- E. Product Data
- F. Manufacturer's Instructions
- G. Application for Payment
- H. Certified payroll

1.03 PROCEDURES

A. Deliver submittals to Engineer:

J.R. Russo & Associates, LLC P.O. Box 938 1 Shoham Road East Windsor, CT 06088

B. All submittals shall be submitted in duplicate and accompanied by a completed transmittal form accepted by the Engineer. The form shall identify: Project, preparer of the submittal, date, name and address of Contractor, Subcontractor, Supplier, and manufacturer; identify pertinent drawing sheet, detail, and Specification Section number, as appropriate; and identify deviations from Contract Documents. Provide space for Contractor and Engineer review stamps.

- C. Submit initial progress schedules, schedule of submittals, and schedule of values in duplicate prior to initiation of work. After review by Engineer, revise and resubmit as required. Submit revised schedules with each Application for Payment, reflecting changes since previous submittal.
- D. Comply with progress schedule for submittals related to Work progress. Coordinate submittal of related items.
- E. After Engineer review of submittal, revise and resubmit as required, identifying changes made since previous submittal.
- F. Distribute copies of reviewed submittals to Owner and concerned persons. Instruct recipients to promptly report any inability to comply with provisions.

2.00 PRODUCTS

2.01 SCHEDULE OF SUBMITTALS

- A. Prior to the initiation of work, the Contractor shall submit a schedule of submittals, arranged in chronological order by dates required by the construction schedule. Include time required for review, re-submittal, ordering, manufacturing, fabrication, and delivery.
- B. Coordinate Schedule of Submittals with list of subcontracts, the Schedule of Values, and Construction Progress Schedule.

2.02 CONSTRUCTION PROGRESS SCHEDULE

- A. Prior to the initiation of work, the Contractor shall submit a schedule of the anticipated starting and completion dates for the various activities. The schedule shall be in a form approved by the Engineer and shall correspond to the schedule of Values required under Paragraph 2.05 of the General Conditions.
- B. The Contractor shall issue an up-to-date progress schedule to the Engineer, along with each application for payment.
- C. It shall be the Contractor's responsibility to notify and coordinate their work with the local utility companies, local fire & police departments, and the Ellington Department of Public Works.

2.03 SCHEDULE OF VALUES

- A. Prior to the initiation of work, the Contractor shall submit a Schedule of Values allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment. The schedule shall be in a form approved by the Engineer.
- B. The Contractor shall issue an up-to-date schedule of values to the Engineer, along with each application for payment.

2.04 SHOP DRAWINGS

- A. Shop Drawings shall be complete, giving all information necessary or requested in the individual section of the specifications. They shall also show adjoining Work and details of connection thereto.
- B. Shop Drawings shall be for whole systems. Partial submissions will not be accepted.
- C. The Engineer reserves the right to review and approve shop drawings only after approval of related product data and samples.
- D. Shop drawings shall be properly identified and contain the name of the project, name of the firm submitting the shop drawings, shop drawing number, date of shop drawings and revisions, Contractor's stamp of approval, and sufficient spaces near the title block for the Engineer's stamp.
- E. When the Shop Drawing is returned by the Engineer with the stamp "Revise and Resubmit" or "Disapproved", the Contractor shall correct the original drawing or prepare a new drawing and resubmit to the Engineer for approval. This procedure shall be repeated until the Engineer's approval is obtained.
- F. When the Shop Drawing is returned by the Engineer with the stamp "Approved" or "Approved as Corrected", the Contractor shall provide and distribute prints for all Subcontractors.
- G. The Contractor shall maintain one full set of approved shop drawings at the site.

2.05 PRODUCT DATA

- A. Mark each copy to identify applicable products, models, options, and other data; supplement manufacturers' standard data to provide information unique to the Work.
- B. Submit the number of copies that Contractor requires, plus two copies, which will be retained by Engineer.

2.06 MANUFACTURER'S INSTRUCTIONS

A. When required in individual Specification Section, submit manufacturer's printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in quantities specified for product data.

2.07 APPLICATION FOR PAYMENT

A. The Application for Payment form to be used on this Project is EJCDC No. C-620. Submit four copies with each application.

2.08 CERTIFIED PAYROLL

A. Along with the submittal of each Application for Payment, the Contractor shall provide written certification that they and their respective subcontractors have complied with the Prevailing Wage Rate requirements established by the State of Connecticut Department of Labor for the period during which the work is performed. Certified payroll shall be submitted in a form approved by the Engineer.

3.00 EXECUTION (Not Used)

END OF SECTION

SECTION 01500

TEMPORARY FACILITIES

1.00 GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- A. Temporary Sanitary Facilities
- B. Temporary Storage Facilities

1.03 SUMMARY

- A. The Contractor shall be responsible for providing and maintaining all temporary facilities until Substantial Completion. Removal of such prior to Substantial Completion must be with the concurrence of the Engineer. The Contractor bears full responsibility for re-providing any facility removed prior to Substantial Completion
- B. Removal of all temporary facilities shall be a condition precedent to Substantial Completion unless directed otherwise by the Owner or specifically noted in the specifications.
- C. The Contractor must comply with all safety laws and regulations of the State of Connecticut, the United States Government, and local government agencies applicable to Work under this contract.
- D. The Contractor shall be responsible for obtaining all necessary permits for Temporary Facilities, including fees.

1.04 TEMPORARY SANITARY FACILITIES

- A. The Contractor shall provide and service an adequate number of toilet booths with chemical type toilets for on-site personnel. Toilets shall be equipped with toilet paper and hand sanitizer.
- B. The toilets shall be erected in a location approved by the Owner and shall be maintained by the Contractor in a clean and orderly condition in compliance with all local and state health requirements.

1.05 TEMPORARY STORAGE FACILITIES

- A. The Contractor shall provide such storage sheds, temporary buildings, or trailers as required for the performance of the Contract. Subcontractors shall provide their own temporary buildings and trailers, if required. All storage facilities and stockpile areas shall be located in an area to be approved by the Owner.
- B. Storage facilities shall be securely locked, weather-tight, with heat and ventilation for products requiring controlled conditions, with adequate space for organized storage and access, and lighting for inspection of stored materials.
- C. Stockpile areas shall be covered and/or contained with silt fence, haybales or other means as necessary to prevent sediment laden runoff.

1.06 REMOVAL

A. Remove temporary materials, equipment, services and construction prior to inspection for substantial completion of work.

2.00 PRODUCTS (Not Used)

3.00 EXECUTION (Not Used)

END OF SECTION

SECTION 01550

TRAFFIC CONTROL

1.00 GENERAL

1.01 SUMMARY

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Specification Sections, apply to this Section.

B. SECTION INCLUDES

- 1. Maintenance of Traffic
- Uniformed Officers

1.02 REFERENCE

- A. Manual on Uniform Traffic Control Devices, U.S. Department of Transportation, latest edition.
- B. "State Specifications" or "DOT" referred to herein means the "State of Connecticut Department of Transportation Standard Specifications Form 818 for Roads, Bridges Facilities and Incidental Construction", including all supplements, latest edition. The word "Engineer" appearing in the State Specifications shall be understood to mean the Owner's representative. Articles dealing with the basis of payment shall be considered inapplicable to this contract.

1.03 GENERAL REQUIREMENTS

- A. The Contractor is responsible for scheduling and paying for all uniform traffic officers when work disrupts traffic.
- B. The Contractor shall prepare a temporary Traffic Control Plan (TCP) in accordance with the MUTCD guidelines for temporary traffic control. The TCP shall be submitted for review and approval by the Engineer, Owner and Ellington Police Department.
- C. Arrange construction activity so that all streets shall remain open to at least one-way traffic during periods of actual work, and to unimpeded, two-way traffic during all other periods.
- D. Safe and adequate ingress and egress to and from intersecting highways, homes and commercial establishments shall be provided and maintained at all times to the satisfaction of the Engineer.

E. Determine the location of each day's work and implement the approved traffic control plan. If the plan requires the use of traffic officers, coordinate with the Police Department.

2.00 PRODUCTS

2.01 DEVICES AND EQUIPMENT

A. All signs and traffic control equipment shall meet MUTCD standards and be subject to the review and approval of the Owner, the Engineer, and the Ellington Police Department.

3.0 EXECUTION

3.01 MAINTENANCE OF TRAFFIC

A. The Contractor shall provide signs, signals, barricades, flares, lights, and all other equipment, service, and personnel necessary to regulate and protect traffic and warn of hazards. The Contractor shall remove temporary equipment and facilities when no longer required, and restore area to original or specified conditions upon removal.

3.02 UNIFORMED OFFICERS

A. All work that encroaches upon a traffic lane shall require the use of uniformed officers of the Town of Ellington Police Department for traffic control.

END OF SECTION

SECTION 01600

MATERIALS & EQUIPMENT

1.00 GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- A. Materials and Products.
- B. Substitutions.
- C. Transportation and Handling.
- D. Storage and Protection.

1.03 MATERIALS AND PRODUCTS

- A. Products include material, equipment and systems.
- B. Comply with Drawings, Specifications and referenced standards as minimum requirements.
- C. Components required to be supplied in quantity within a Specification Section shall be the same and shall be interchangeable.

1.04 SUBSTITUTIONS

- A. If after Award of Contract, the Contractor desires to use another material in lieu of those specified, he shall request, in writing, the approval of same. Such request must state the amount of dollars by which the Contractor Sum would be increased or decreased in case of approval of such substitution.
- B. All requests for substitution must be reasonable and offer a clear advantage to the Owner because of improved performance, reduced cost, or better deliveries.
- C. All requests for substitutions must be presented in writing and be substantiated by means of manufacturer's data, certification, instructions, specifications, etc., as the Engineer may require.
- D. Contractor assumes all responsibility for adjustments in and to adjacent materials caused by use of substituted materials.

1.05 TRANSPORTATION AND HANDLING

- A. Transport products by methods to avoid product damage; deliver in undamaged condition in manufacturer's unopened container or packaging, dry.
- B. Provide equipment and personnel to handle products by methods to prevent soiling or damage.
- C. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.

1.06 STORAGE AND PROTECTION

- A. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight enclosures; maintain within temperature and humidity ranges required by manufacturer's instructions.
- B. For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering; provide ventilation to avoid condensation.
- C. Store loose granular materials on soil surfaces in a well-drained area; prevent mixing with foreign matter.
- D. Arrange storage to provide access for inspection. Periodically inspect to assure products are undamaged, and are maintained under required conditions.
- E. All work shall be performed within road right-of-way and/or grading limits shown on the plans. No material or equipment stockpile areas are shown on the Drawings. The Contractor may coordinate with the Owner for utilization of nearby areas for the purpose of staging, equipment storage and limited stockpiling.

2.00 PRODUCTS (Not Used)

3.00 EXECUTION (Not Used)

END OF SECTION

SECTION 01700

SPECIAL PROJECT PROCEDURES

1.00 GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- A. Reference Standards.
- B. Preconstruction Meetings.
- C. Weekly Job Meetings
- D. Contractor Use of Premises.
- E. Owner Occupancy.
- F. Protection of Property.
- G. Protection of Installed Work.
- H. Signs.
- I. Coordination of Utilities.
- J. Runoff Control.
- K. Cleaning During Construction.
- L. Inspections & Testing
- M. Conditions of the Site and Constraints.
- N. Work Hours
- O. Permits

1.03 REFERENCE STANDARDS

- A. For products specified by association or trade standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. All references to standard specifications and codes made throughout these specifications refer to the latest editions in effect at the dates of proposal. Such references include current addenda, and errata, if any, and shall be considered a part of these specifications as much as if the pertinent portions of those standard specifications were printed herein in their entirety.
- C. Obtain copies of standards when required by Contract Documents. Maintain copy at job site during progress of the specific work.

1.04 PRECONSTRUCTION MEETINGS

- A. Prior to the initiation of work, the Owner will administer a preconstruction meeting at a location to be determined by the Owner, to establish a working understanding among the parties as to the Work and to discuss the project schedules and discuss procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

1.05 WEEKLY JOB MEETINGS

A. During the course of the project, the Contractor shall administer weekly job meetings at a time and location to be agreed upon by the Owner and Engineer. The purpose of the job meeting will be to inform the Owner of the current status of the Work, answer questions regarding either installed Work or upcoming Work, and review Applications for Payment.

1.06 CONTRACTOR USE OF PREMISES

- A. Limit use of premises for work and for construction operations and allow for Owner access.
- B. Contractor personnel parking shall be restricted to area approved by the Owner.
- C. Coordinate use of premises under direction of Owner.

1.07 OWNER OCCUPANCY

- A. The work of this Contract shall be done so as not to interfere with access to existing facilities or work areas, so as to cause the least possible interference with activities of the Owner and Residences and to protect people and property from harm.
- B. The Contractor shall obtain approval from the Owner through the Engineer before starting work in any area.

1.08 PROTECTION OF PROPERTY

- A. All dwellings along the street will be occupied during construction. The Contractor shall take all necessary precautions to ensure the public safety and convenience of the occupants during construction.
- B. The work under this Contract shall be executed in such a manner that no damage or injury will occur to the public, to all properties and structures off or on the site which may be in any way affected by the operations under the Contract, to streets, paving, gas, water, electrical or any other pipes, underdrains, mains, conduits, overhead utility wires, and any and all other property. Should any damage or injury be caused by the Contractor or anyone in his employ, or by the work under this contract, the Contractor shall, at his own expense, make good such damage and, assume all responsibility for such injury without cost to the Owner.
- C. Any and all areas outside the work area shown on the plans that may be disturbed during the process of the work shall be restored as directed by the Engineer representative to their original condition at the Contractor's expense.

1.09 PROTECTION OF INSTALLED WORK

- A. Provide temporary protection for installed products. Control traffic in immediate area to minimize damage.
- B. Prohibit traffic and storage on finished lawn and landscape areas.
- C. Maintain finished surfaces clean, unmarred and suitably protected until accepted by the Owner.

1.10 SIGNS

A. The premises shall be kept free from all advertising, and no signs shall be erected without the express permission of the Owner.

1.11 COORDINATION OF UTILITIES

A. The Contractor shall be responsible for the bracing and/or relocation of utility poles and guy wires adjacent to construction activities as necessary. The Contractor shall coordinate these activities with the appropriate utility companies. The cost for bracing and/or relocation of utility poles shall be included in the appropriate bid item.

1.12 RUNOFF CONTROL

A. Grade site to drain. Maintain excavations free of water. Maintain operation of drainage system and provide and operate pumping equipment where necessary. Discharge dewatering waste waters in accordance with the Specifications and 2002 Connecticut Guidelines for Soil Erosion and Sediment Control.

1.13 CLEANING DURING CONSTRUCTION

A. Before the completion of each day's work, the Contractor shall be responsible for cleaning up and removing or relocating all excavated material, debris, equipment and the like and for temporarily backfilling or filling excavations as necessary to ensure the continuous flow of traffic in roadways where work is progressing, including access to private property during non-working hours.

1.14 INSPECTION & TESTING

- A. The Owner and the Engineer shall have access to site work at all times, and all work shall be subject to their inspection.
- B. Inspectors representing the Owner shall be authorized to inspect all work and materials furnished by the Contractor.
- C. The Contractor shall be responsible for providing laboratory and field testing to be performed by an independent testing laboratory to verify conformance with the project requirements as required in these specifications.

1.15 CONDITIONS OF THE SITE AND CONSTRAINTS

A. The existing parking lot and library shall remain open during the course of construction. The Contractor shall ensure the parking lot and building is accessible at all times during the course of construction. Closure of portions of the existing parking lot in the vicinity of the work area are to be minimized and coordinated with the Owner and Library staff.

1.16 WORK HOURS

- A. Work hours will be limited to between the hours of 7:30 a.m. and 5:30 p.m. Monday through Friday, unless more restrictive work hours are established in the CT DOT Encroachment Permit. Work will not be allowed on weekends or state holidays.
- B. The Contractor shall coordinate with the Engineer for Town Events or Library Events that may restrict construction activities.

1.17 PERMITS

- A. Contractor shall be responsible for obtaining an Encroachment Permit from the Department of Transportation for the work proposed within the State Highway Right-of-Way.
- B. Contractor shall obtain any other construction permits and licenses that may be required.
- C. Anticipated permits include an Encroachment Permit from the Department of Transportation and building and zoning permits for temporary construction facilities.
- C. Local permit fees associated with the road cut and temporary structures will be waived by the town of Ellington.

2.00 PRODUCTS (Not Used)

3.00 EXECUTION (Not Used)

END OF SECTION

SECTION 01730

CONTRACT CLOSEOUT

1.00 GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- Closeout Procedures.
- B. Final Cleaning.
- C. Final Inspection.
- D. Project Record Documents.
- E. Guarantees, Warranties, and Bonds.

1.03 CLOSEOUT PROCEDURES

- A. Comply with procedures stated in General Conditions of the Contract for issuance of Certificate of Substantial Completion.
- B. Furnish warranties and bonds for items so listed in pertinent other sections of the Contract Documents.
- C. Provide evidence of payment and release of liens.

1.04 FINAL CLEANING

- A. Execute prior to Final Inspection.
- B. Repair, patch, and touch up marred surfaces to the specified finish, to match adjacent surfaces.
- C. In cleaning items with manufacturer's finish or items previously finished by a Subcontractor, care shall be taken not to damage such manufacturer's or Subcontractor's finish. Any damage to finishes caused by cleaning operations shall be repaired at the Contractor's expense.
- D. Broom clean exposed concrete surfaces and paved surfaces. Rake clean other surfaces of grounds.
- E. Remove waste and surplus materials, rubbish and construction facilities from the Project and from the site.

1.05 FINAL INSPECTION

- A. Upon completion of final cleaning, the Contractor shall notify the Engineer who shall then arrange for final inspection. At the time of final inspection of the work performed under the Contract, all work covered by the Drawings and these Specifications shall be complete in every respect and in perfect operating condition. All surplus materials of every character resulting from the work of this project shall have been removed from the site.
- B. Any defects discovered in any of the work as a result of the final inspection shall be corrected in accordance with the terms of the contract prior to final acceptance of the work.

1.06 RECORD CONTRACT DOCUMENTS

- A. Job set: Promptly following receipt of the Owner's Notice to Proceed, secure from the Engineer at no charge to the Contractor a digital copy of all contract documents.
- B. During the progress of the work, the Contractor shall maintain a current record set of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction.
- C. Manufacturers' and subcontractors', shop drawings, line-and-control diagrams, assembly and erection drawings, etc., shall also be corrected to indicate As-built conditions, and maintained as Record Contract Documents.
- D. Store Record Documents separate from those used for construction.
- E. Keep Record Documents current: do not permanently conceal any work until required information has been recorded.

F. Accuracy of records:

- 1. Thoroughly coordinate changes within the Record Documents, making adequate and proper entries on each page of Specifications and each sheet of Drawings and other Documents where such entry is required to show the change properly.
- 2. Make entries within 24 hours after receipt of information that the change has occurred. Date all entries.
- G. At the completion of the construction work and prior to acceptance of the project, the Contractor shall provide the marked up Record Contract Documents to the Engineer.

1.07 GUARANTEES, WARRANTIES AND BONDS

- A. Except as otherwise specified, the Contractor shall guaranty all work against defects resulting from materials, workmanship, or equipment which are inferior, defective, or not in accordance with the terms of the Contract.
- B. All workmanship and materials shall be fully guaranteed for a period of one year after acceptance of the entire installation covered by this contract. Should any defects occur during the guaranteed period, the contractor shall repair and/or replace all defective equipment, material and/or work at no extra charge to the owner.
- C. Furnish fully executed guarantees, warranties and bonds to the Owner in accordance with the General Conditions.

2.00 PRODUCTS (Not Used)

3.00 EXECUTION (Not Used)

END OF SECTION

SECTION 02070

DEMOLITION

1.00 GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- B. Provide all labor, materials, necessary equipment and services to complete Work indicated on Drawings, as specified herein or both. Work includes but is not limited to:
 - 1. Sawcut pavement.
 - 2. Removal of bituminous curbing.
 - 3. Removal of bituminous pavement.
 - 4. Removal of concrete sidewalks.
 - 5. Removal of existing light poles.
 - 6. Removal of trees and shrubs.
 - 7. Removal of landscape beds.
 - 8. Removal of any other features necessary for the completion of the Work.

1.03 SUBMITTALS

A. Submit demolition and removal schedules under provisions of Section 01300.

1.04 PROJECT CONDITIONS

- A. Provide, erect, and maintain temporary barriers and temporary traffic control devices.
- B. Damages: Promptly repair damages caused to adjacent facilities by demolition work.
- C. Conduct selective demolition operations and debris removal to ensure minimum interference with adjacent occupied or used facilities.
 - 1. Do not close, block, or otherwise obstruct occupied or used facilities. Maintain protected egress and access at all times.
 - 2. Conduct operations with minimum interference to public or private thoroughfares. Maintain protected egress and access at all times.
 - 3. Provide alternate routes around closed or obstructed traffic ways as necessary.

- D. Sawcut existing pavement prior to installation of new adjacent pavement to provide a clean smooth edge between existing and new pavement.
- E. Utility Services: Maintain existing utilities indicated to remain in service and protect them against damage during demolition operations.
 - a. Do not interrupt utilities serving occupied or used facilities, except when authorized in writing by Owner. Provide temporary services during interruptions to existing utilities, as acceptable to Owner. Contractor shall notify Owner a minimum of 48 hours in advance of any interruption in service. Interruptions in service must be authorized by the Owner.

<u>2.00 PRODUCTS</u> (Not Applicable)

3.00 EXECUTION

3.01 PREPARATION

- A. Prevent movement or settlement of adjacent structures. Provide bracing and shoring as necessary.
- B. Protect existing items that are not indicated to be altered.

3.02 TREE & SHRUB REMOVAL

- A. Remove trees, shrubs, hedges, grass and other vegetation as required to permit installation of new construction. Remove similar items elsewhere on site or premises as specifically indicated.
- B. Trees shall be felled in a manner so as not to damage surrounding utilities, structures or persons.
- C. Removal includes digging out and off-site disposal of stumps and roots. All material shall be disposed of off-site at the Contractor's expense.
- D. Fill depressions caused by clearing and grubbing operations with satisfactory soil material, unless further excavation or earthwork is indicated. Conform to requirements of Section 02200 Earthwork for selection and placement of fill material.

3.03 **DEMOLITION**

- A. General: Perform demolition work in a systematic manner. Use such methods as required to complete work indicated on Drawings in accordance with demolition schedule and governing regulations.
- B. Keep work sprinkled with water to minimize dust. Provide appropriate equipment for this purpose.

C. Utilities

- 1. Locate existing underground utilities in areas of work. If utilities are to remain in place, provide adequate support and protection during earthwork operations, comply with OSHA requirements.
- 2. Coordinate interruption and/or termination of utilities with the utility companies and the Owner.
- 3. Demolish and completely remove from the site any existing underground utilities designated to be removed in accordance with Contract Drawings and requirements of utility companies.
- 4. Repair any damaged utilities as acceptable to the Engineer, at no additional cost to the Owner.
- D. If unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure both nature and extent of the conflict. Submit report to Engineer in written, accurate detail. Pending receipt of directive from Engineer, rearrange selective demolition schedule as necessary to continue overall job progress without undue delay.
- E. Backfill open pits, holes and other excavated areas, resulting from demolition work. Conform to requirements of Section 02200. Rough grade and compact areas affected by demolition to maintain site grades and contours.
- F. Items to be relocated shall be dismantled carefully so as not to cause damage. They shall be stored for future use in a safe, protected location by the Contractor.

3.04 DISPOSAL OF MATERIALS

- A. Remove demolished materials from site as work progresses. Leave site in clean condition.
- B. Remove from site debris, rubbish, and other materials resulting from demolition operations. Transport and legally dispose off site.

- C. If hazardous materials are encountered during demolition operations, comply with applicable regulations, laws, and ordinances concerning removal, handling, and protection against exposure or environmental pollution.
- D. Burning of removed materials is not permitted on project site.

3.05 CLEANUP AND REPAIR

- A. General: Upon completion of demolition work, remove tools, equipment, and demolished materials from site. Remove protections and leave interior areas broom clean.
- B. Repair demolition performed in excess of that required. Return elements of construction and surfaces to remain to condition existing prior to start of operations. Repair adjacent construction or surfaces soiled or damaged by selective demolition work.

END OF SECTION

SECTION 02100

SITE PREPARATION

PART 1 GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 - Specifications, apply to the work specified in this Section.

1.02 DESCRIPTION OF WORK

- A. Provide all labor, materials, necessary equipment and services to complete Work indicated on Drawings, as specified herein or both. Work includes but is not limited to:
 - 1. Protect trees, structures and other facilities.
 - 2. Install barricades and temporary passageways.
 - 3. Install temporary soil erosion control measures.
- B. Related Work Specified Elsewhere:
 - 1. Section 02070: Demolition
 - 2. Section 02200: Earthwork
 - 3. Section 02505: Asphalt Pavement Reclamation
 - 4. Section 02510: Bituminous Concrete Pavement
 - 5. Section 02514: Portland Cement Concrete Pavement

1.03 ORDER OF CONSTRUCTION

- A. All work included in this section must be coordinated with and adapted to the progress and order of construction of other sections.
- B. The work shall be scheduled to install all utilities, related structures, and other subsurface site work before beginning the subgrades for paved and seeded areas.
- C. The Contractor shall maintain protected egress and access at all times.
- D. Sediment barriers (silt sacks) shall be installed at catch basins called for on the Contract Plans shall be installed prior to any earthwork at the site.

SITE PREPARATION 02100-1

1.04 EXAMINATION OF CONDITIONS

A. The Contractor shall fully inform himself of existing conditions at the site before submitting his bid, and shall be 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. No claim for extra compensation or extension of time will be allowed on account of actual condition inconsistent with those assumed, except those conditions described in the General Conditions.

1.05 PROTECTION

- A. The Contractor shall be responsible for the preservation of all public and private property, monuments, underground structures and utilities, etc., on or adjacent to the project site and shall use every precaution necessary to prevent damage or injury thereto.
- B. The Contractor shall be responsible for all damage or injury to property of any character resulting from any act, omission, neglect, or misconduct in his manner or method of executing said work, or due to his nonexecution of said work, or at any time due to defective work or materials, and said responsibility shall not be released until the work shall have been completed and accepted.
- C. When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work, or in consequence of the non-execution on the part of the Contractor, he shall restore at his own expense, such property to a condition similar or equal to that existing before such damage or injury was done by repairing, rebuilding, or otherwise restoring, as directed.
- D. Supply and install any and all bracing and barricades necessary to prevent damage to existing trees, structures, utilities, and facilities and to protect the public and construction personnel from injury. The Contractor shall be held responsible for, and must make good at his own expense, any damage caused by improper protective procedures.
- E. Convenient access to all parts of the project and maintenance of same shall be provided.

1.06 SUBMITTALS

A. Manufacturer's technical product data and installation instructions for each identification material and device required.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Barricades and signs shall be constructed satisfactory to the Owner.
- B. Protective Barriers
 - 1. 4' high, orange, copolymer polypropylene safety fence meeting the following minimum requirements:
 - Horizontal tensile strength 1500 lbs/ft of width
 - Vertical tensile strength 180 lbs/ft of width
 - Junction strength 80% of rib strength
 - Ultraviolet resistance fully stabilized
 - Elongation break 15%
 - 2. Wood or metal stakes of sufficient length to be firmly set in ground and support protective fencing.
- C. Sediment Barriers at Catch Basins shall be Silt Sack as provided by ACF Environmental or equal.
- D. Silt Fencing "Envirofence" by Mirafi, "Propex Silt Stop" by Amoco, or equal.
- E. Sediment Filter Sock Silt Sock or approved equal.

PART 3 EXECUTION

3.01 GENERAL

A. Barricades and signs to ensure safety of local traffic, cyclists, pedestrians, workmen, or any person in the vicinity of the construction area shall be installed prior to the initiation of work and maintained throughout.

3.02 PROTECTION OF EXISTING TREES

A. Protect trees in areas near construction by installing protective barrier in accordance to manufacturer's recommendations before grading operations. No material shall be stockpiled and no equipment parked or repaired within 15 feet of any tree to be saved.

B. Trees damaged shall be repaired by a tree surgeon in a manner approved by the Owner. Any tree removed erroneously or damaged beyond satisfactory repair, shall be replaced with the same species and caliper at the Contractor's expense, which shall be balled, burlapped and platformed. Replacement trees may not be greater than 5-inch caliper.

3.03 PROTECTIVE BARRIERS

- A. Construction fencing shall be secured using wood or metal stakes.
- B. Protective fencing should be removed only after all grading, including spreading of topsoil is completed.

3.04 TEMPORARY EROSION CONTROL MEASURES

- A. Perform all work under this contract in such a manner that objectionable conditions will not be created in water courses through or adjacent to the project area.
- B. The plans show the minimum requirements for erosion control.
- C. Install additional erosion control devices as required to control erosion and sedimentation in the opinion of the Engineer, and/or regulatory agencies having jurisdiction at no additional cost to the Owner.
- E. Install perimeter devices and inlet protection devices prior to any soil or vegetation disturbance.
- F. Sediment barriers at catch basins shall be installed in accordance with manufacturer's instructions.
- G. Do not remove erosion control until the entire area has been permanently stabilized, at the discretion of the Owner or Engineer.

3.05 DUST CONTROL

- A. Exercise particular care to control dust both during and after construction. A mechanical street sweeper shall be used as needed.
- B. Prevent dust from becoming a nuisance or hazard. During construction, excavated material and open or stripped areas are to be properly policed and controlled so as to prevent spreading of material.
- C. Sprinkle surfaces with water prior to street sweeping to prevent dust generation.

D. During and after construction, all paved surfaces are to be scraped and broomed free of excavated material on a daily basis. The surfaces are to be hosed down to eliminate active or potential dust conditions and the natural road or wearing surface is to be exposed.

END OF SECTION

SECTION 02200

EARTHWORK

1.00 GENERAL

1.01 RELATED DOCUMENTS

- A. "State Specifications" or "DOT" referred to herein means the "State of Connecticut Department of Transportation Standard Specifications Form 818 for Roads, Bridges Facilities and Incidental Construction", including all supplements, latest edition. The word "Engineer" appearing in the State Specifications shall be understood to mean the Owner's representative. Articles dealing with the basis of payment shall be considered inapplicable to this contract.
- B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. The Contractor shall provide all labor, materials, equipment, and services necessary for, and incidental to complete the Work indicated on Drawings, as specified herein or both. Work includes but is not limited to:
 - 1. Excavation
 - 2. Trenching & Bedding
 - 3. Filling, Grading, Backfilling & Compaction
 - 4. Dewatering & Drainage Control
- B. Related Work Specified Elsewhere:
 - 1. Section 02070: Demolition
 - 2. Section 02505: Asphalt Pavement Reclamation
 - 3. Section 02510: Bituminous Concrete Pavement
 - 4. Section 02514: Portland Cement Concrete Pavement
 - 5. Section 02605: Drainage Structures
 - 6. Section 02606: Altering Existing Structures
 - 7. Section 02610: Buried Pipe Installation
 - 8. Section 02870: Site Furnishings
 - 9. Section 02920: Seeding
 - 10. Section 02950: Exterior Plants
 - 11. Section 16525: Site Lighting

1.03 PROJECT CONDITIONS

- A. The Contractor shall accept the site in the condition in which it exists at the time of the award of the Contract.
- B. Notify the Engineer of any unexpected subsurface condition.

1.04 QUALITY ASSURANCE

- A. The Contractor shall comply with the requirements for soil erosion and sedimentation control, and other requirements of governmental authorities having jurisdiction, including the State of Connecticut.
- B. The Engineer shall determine the suitability of materials that are to be used in the work and should any materials encountered be unsatisfactory for the purpose intended, they shall be removed from the site and replaced with suitable material to the satisfaction of the Engineer.
- C. The Contractor shall provide and pay for all costs in connection with an approved independent testing company to determine conformance of soils and aggregate with the required specification and to perform compaction testing to verify field quality control.

1.05 SUBMITTALS

A. Samples:

1. The Contractor shall furnish earth materials to an approved testing laboratory for analysis and report, as directed by the Engineer, or as outlined in the specifications.

B. Test Results:

1. The testing laboratory shall submit written reports of all tests, investigations, and recommendations to the Contractor <u>and</u> the Engineer.

1.06 PROTECTION

- A. Protect excavations by shoring, bracing, sheet piling, underpinning, or other methods required to prevent cave-in or loose soil from falling into the excavation. The Contractor shall engage a licensed professional engineer in the State of Connecticut to design sheeting and shoring and certify trenches for global stability in compliance with Connecticut and OSHA requirements.
- B. Underpin or otherwise support adjacent structures that may be damaged by excavation work.

C. Protection of Existing Utilities

- 1. Locate existing underground utilities in areas of work. If utilities are to remain in place, provide adequate support and protection during earthwork operations, comply with OSHA requirements.
- 2. Coordinate interruption and/or termination of utilities with the utility companies and the Owner.
- 3. Repair any damaged utilities as acceptable to the Engineer, at no additional cost to the Owner.
- 4. Coordinate relocation of conflicting utilities with utility companies and the Engineer. Cost of relocation not specified on the Drawings shall be paid for by the Owner.

D. Protection of Persons and Property:

- 1. Barricade open excavations occurring as part of this work.
- 2. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by earthwork operations.
- 3. Trees damaged during excavation shall be inspected by the Owner to determine if the tree must be removed. If so ordered by the Engineer, the Contractor shall remove and replace the damaged tree at no additional cost to the Owner.

2.00 PRODUCTS

2.01 MATERIALS

- A. Topsoil: Fertile, friable, natural topsoil of loamy character, without admixture of subsoil material, obtained from a well-drained arable site, screened ½", reasonably free from clay, lumps, coarse sands, stones, plants, roots, sticks, and other foreign materials, with acidity range of between pH 6.0 and 6.8. USDA soil classification: Sandy Loam. Provide topsoil free of substances harmful to the plants which will be grown in the soil.
- B. Subsoil: Excavated material, grade free of lumps larger than 6 inches, rocks larger than 3 inches, and debris. For use as backfill in unpaved areas with proper compaction.
- C. Granular Fill: Stone, gravel or reclaimed aggregate meeting the requirements of DOT M.02.06, Grading B. For use as structure backfill.
- D. Processed Aggregate Base: Aggregate meeting the requirements of DOT M.05.01. For use as pavement base and trench backfill.

- E. Reclaimed Aggregate Base: Pulverized asphalt materials meeting the requirements of Section 02505 Asphalt Pavement Reclamation to be used as pavement base.
- F. Fine Crushed Recycled Asphalt: Fine pulverized asphalt material as supplied by Barber Utilities, Ellington, CT. For use to construct walkway in the landscaped area north of the new parking lot.
- G. Sand Bedding/Sand Blanket: Sand, or sandy material meeting the requirements of DOT M.08.03-1. For use as trench bedding and backfill.
- H. 3/4" Crushed Stone: Crushed or broken stone meeting the gradation requirements of DOT M.01.01 No.6. For use as bedding under and around pipe, as base under structures, and as replacement for unsuitable material under pipe.
- I. Filter Fabric: For use as wrap around stone bedding material in trenching and under structures. Non-woven geotextile fabric composed of polypropylene fibers meeting the following minimum requirements:

Property	Test Method	Unit	Minimum Value
Tensile Strength	ASTM D 4595	lbs/in	50
Grab Tensile Strength	ASTM D 4632	lbs	141
Grab Tensile Elongation	ASTM D 4632	%	80
Trapezoidal Tear	ASTM D 4533	lbs	65
Mullen Burst Strength	ASTM D 3786	psi	250
Puncture Strength	ASTM D 4833	lbs	74
CBR Puncture Strength	ASTM D 6241	lbs	390
Permittivity	ASTM D 4491	sec ⁻¹	2.2
Flow Rate	ASTM D 4491	gal/min/ft ²	165
UV Resistance	ASTM D 4355	% strength retained	70

3.00 EXECUTION

3.01 PRECONSTRUCTION MATERIAL QUALIFICATION TESTING

A. Prior to construction, the Contractor shall be responsible for material testing of potential borrow backfill materials to establish conformance with the required specifications and modified proctor in accordance with this paragraph. If the borrow source changes or the borrow materials change significantly during construction, the Contractor shall be responsible for additional material testing necessary to establish a new proctor and verify material conformance with the specifications.

- B. A 100-pound minimum representative sample shall be obtained from each potential borrow source. If different material gradations are known to exist in the pit, samples shall be obtained for each material. Each sample shall be mixed thoroughly and reduced to test specimen size, in accordance with AASHTO T87. The test shall be performed in the order shown. Failure to pass any test is grounds for disqualification and shall lead to cessation of the test program for that material.
 - 1. Particle Size Analysis:
 - a. Method: AASHTO T27.
 - b. Acceptance Criteria: Gradation within specified limits.
 - 2. Maximum Density Determination:
 - a. Method: ASTM D1557, Modified Proctor.
 - 3. Frequency of Analysis:
 - a. Topsoil = 1 per source
 - b. Gravel/Process Aggregate = 1 per 5,000 cy
 - c. Sand = 1 per 2,500 cy
 - d. Stone = 1 per 20,000 cy
 - 4. Re-establish gradation and maximum density of fill material if source is changed during construction.

3.02 INSPECTION

- A. Verify that excavated material is suitable for reuse.
- B. Verify areas to be backfilled are free of debris, snow, ice or water, and surfaces are not frozen.

3.03 PREPARATION

- A. Establish required lines, levels, contours and datum.
- B. Maintain benchmarks and other elevation control points. Re-establish, if disturbed or destroyed, at no additional cost to the Owner.
- C. Establish location and extent of utilities before commencement of grading operations.
- D. Ensure temporary erosion control measures are in place prior to earthwork in accordance with Contract Drawings and Section 02100 Site Preparation.

3.04 EXCAVATION

- A. Excavation shall consist, in general, of the excavation of whatever substance is encountered to the lines, grades and sections shown on the Drawings, including excavation as necessary for grading and other similar features.
- B. All suitable materials removed in excavation shall be used in the construction of embankments, subgrade, shoulders, slopes and at such other places as directed. The Engineer shall be the sole judge of what constitutes suitable material.
- C. During construction, the grading operations shall be executed in such a manner that the excavation will be well drained at all times. All grading shall be finished on neat, regular lines conforming to the sections and contours shown on the Plans.
- D. Removal of materials beyond the indicated subgrade elevations, without authorization by the Engineer, shall be classified as unauthorized excavation and shall be performed at no additional cost to the Owner.
- E. Do not perform any additional work without written authorization from the Owner if existing subgrade material is unsuitable for intended use.
- F. Maintain stability of excavations; providing sheeting, shoring and bracing as required.
- G. Any excess excavation shall be removed from the site to disposal areas at the Contractor's expense.

3.05 TRENCHING

- A. All excavation shall be made to such depth as required and of the width shown on the Contract Drawings to provide suitable room for building the structures and laying the pipe(s) they are to contain and for sheeting, shoring, pumping and draining as necessary, and for removing peat, silt, or any other materials which the Engineer may deem unsuitable.
- B. Trench excavation for pipes shall be made by open cut to accommodate the pipe or structure at the depths indicated on the Contract Drawings. Excavation shall be made to such a depth and to the width indicated on the Contract Drawings so as to allow required pipe zone bedding to be placed beneath the bottom of all structures and barrels, bells or couplings of all pipes installed unless otherwise specified on the drawings.
- C. The bottom of the trench shall be accurately graded to provide a uniform layer of bedding material, as required, for each section of pipe. Trim and shape trench bottoms and leave free of irregularities, lumps, and projections. If trench is over excavated, provide additional bedding material for backfill at no additional cost to the Owner.

- D. Excavation Below Grade: The contractor shall notify the Engineer if material encountered at the base of the trench appears to be unsuitable. If, in the opinion of the Engineer, existing material below the trench grade is unsuitable for properly placing bedding material and laying pipe, the Contractor shall excavate and remove an additional material and replace it with 3/4" stone as directed by the Engineer. Replacement of unsuitable material shall subject to additional compensation through a Change Order.
- E. Stability of Excavation: Slope sides of excavations shall comply with local codes and ordinances having jurisdiction including Connecticut and OSHA Trenching and Excavation Standards. Sheet, shore and/or brace where sloping is not possible because of space restrictions or stability of material excavated. Maintain sides and slopes of excavation in safe condition until completion of backfilling.
- F. Removal of materials beyond the indicated subgrade elevations, without authorization by the Engineer, shall be classified as unauthorized excavation and shall be performed at no additional cost to the Owner.

3.06 TRENCH BEDDING, BACKFILL & COMPACTION

- A. The bedding material shall be placed to the full width of trench. The bedding material shall be tamped and compacted to form a firm and even bearing surface.
- B. Install pipe in stone and/or sand bedding material as detailed on plans. Install filter fabric between over and/or encapsulating stone as detailed on plans.
- C. Normally the placement of the pipe shall start at the downstream end and progress upstream. All pipe shall be carefully laid, true to the lines and grades given, hub ends upgrade and with the spigot ends fully entered into the adjacent hubs.
- D. If so ordered by the Engineer, any pipe which is not in true alignment, or which shows any settlement or distortion after laying, shall be taken up and relaid or corrected, to the satisfaction of the Engineer without additional compensation.
- E. Backfill material shall be of a quality satisfactory to the Engineer and shall be free from large or frozen lumps, wood and other extraneous material. Rock fill or stones larger than 2 inches shall not be placed closer than 2 feet from the pipe at any point.
- F. All suitable material removed in making the excavation shall be used for backfill if required. All surplus or unsuitable material shall be removed and disposed of as directed. If so ordered by the Engineer, remove unsuitable material and replace with Granular Fill.
- G. In paved areas, place and compact backfill materials in layers of not more than 6 inches in depth after compaction. The backfill shall be brought to the pavement subgrade elevation and neatly graded.

- H. In unpaved areas, place and compact backfill material in layers of not more than 6 inches in depth after compaction to a height of 12 inches above the pipe. The reminder of the trench shall be compacted in 12-inch layers to the subgrades shown on the drawings.
- I. All pipe trench structure backfill shall be compacted by tamping or rolling to achieve a minimum dry density of 95 percent of the Modified Proctor maximum dry density of the material used (ASTM D1557). Backfill materials shall be placed with water content within plus or minus 4 percent of optimum moisture content per the Modified Proctor method (ASTM D1557). Any water used for compaction shall be provided by the Contractor at his own expense. The approval of the Engineer of the proposed method of compaction of backfill shall in no way be construed as relieving the Contractor of responsibility of settlement of trenches, etc. and any settlement shall be repaired by the Contractor at his own expense.

3.07 FILLING

- A. All site fill shall be as shown on the Drawings, or directed by the Engineer.
- B. Before depositing fills, the surface of the ground shall be cleared of all topsoil, refuse, brush and large stones.
- C. Prior to placing fill over undisturbed material, scarify to a minimum depth of six (6) inches.
- D. Where fills are made on hillsides or slopes, the slope of the original ground upon which the fill is to be placed shall be plowed or scarified deeply or where the slope ratio of the original ground is steeper than 2 horizontal to 1 vertical, the bank shall be stepped or benched.
- E. The original ground shall be proof rolled until the underlying soil is thoroughly compacted to the satisfaction of the Engineer before any filling is begun. A steel-wheel tandem roller weighing 8 to 10 tons or equipment capable of obtaining the same compactive effort shall be used to obtain a thoroughly compacted subgrade. Remove or recompact any soft or loose soils as determined by the Engineer prior to filling.
- F. A thoroughly and satisfactorily compacted subgrade is defined as having a minimum dry density of 95 percent of the maximum density of the material used. The subgrade material shall be compacted at a moisture content suitable for obtaining the required density.
- G. Place borrow backfill and fill materials in layers not more than 12" in loose depth. Lift height shall be governed by the ability of the compaction equipment to obtain the required compaction with 12" as a maximum lift height. Before compaction, moisten or aerate each layer as necessary to facilitate compaction to the required density.

- H. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost, ice, ponded water or extraneous debris.
- I. When work is suspended during periods of freezing weather, measures shall be taken to prevent fill already in place from freezing. Upon resumption of work after any inclement weather, prepare the exposed surface by proof rolling to identify any zones of soft/loose soils. Soft/loose materials or frozen existing soils shall be removed and replaced with compacted granular fill.
- J. Where fill or backfill must be moisture conditioned before compaction, uniformly apply water to the surface and to each layer of fill or backfill. Prevent ponding or other free water on surface subsequent to, or during, compaction operations.
- K. Remove and replace, or scarify and air dry, soil that is too wet to permit compaction to specified density. Soil that has been removed because it is too wet to permit compaction may be stockpiled or spread and allowed to dry. Assist drying by discing, harrowing or pulverizing, until moisture content is reduced to a value that will permit compaction to the percentage of maximum density specified.
- L. Compaction equipment used for the Work is subject to approval by the Engineer. Any equipment not originally manufactured for compaction purposes and equipment which is not in proper working order will not be approved.

3.08 GRADING

- A. Grade over areas, as required, to finished subgrade levels so as to meet slope requirements shown on plans and provide positive drainage. Upon completion of this work, all debris shall be cleaned out and removed from the premises.
- B. Sufficient grading must be done during the progress of the work so that the entire site shall be well-drained and free from water pockets.
- C. Finish grading, including dressing swales, cleaning up excess trench excavation, dressing terraces, disposing of excess material and all other work necessary to prepare the site for topsoil and seeding shall be done after construction of structures are substantially complete.

3.09 DRAINAGE AND DEWATERING

- A. Prevent surface, subsurface or groundwater from flowing into excavation and from flooding project area, as well as surrounding areas.
- B. Do not allow water to accumulate in excavations. Remove water to prevent soil changes detrimental to the stability of subgrades.

- C. The Contractor shall remove all water from the excavation promptly and continuously throughout the progress of the work and shall keep the excavation dry at all times until the structures to be built therein are completed and are backfilled or have sufficient weight to resist uplift pressures. No pipe or masonry is to be laid in water and water shall not be allowed to rise on or flow over any pipe or masonry until such time as approved by the Engineer.
- D. Provide and maintain the pumps, well points, sumps, suction and discharge lines, and other dewatering components necessary to convey water away from excavations.
- E. Dewatering wastewater shall be filtered prior to discharge in accordance with the 2002 Connecticut Erosion & Sediment Control Guidelines.
- F. Precautions shall be taken to protect uncompleted work from flooding during storms or from other causes. All pipelines or structures not stable against uplift during construction or prior to completion shall be thoroughly braced or otherwise protected.

3.10 SUSPENSION OF WORK

- A. Whenever the work is suspended, excavations shall be protected and sidewalks and roadways, if any, left unobstructed. Material shall be stored at such locations as will not unduly interfere with traffic of any nature and in no case shall materials be stored in locations which will cause damage to existing improvements.
- B. Trenches will be backfilled or covered with metal plates overnight for public safety.

3.11 DISPOSAL OF MATERIAL

A. Excess and unsuitable materials shall be disposed of off- site at the Contractors expense.

3.12 FIELD QUALITY CONTROL

- A. Notify the Engineer at least one (1) working day in advance of all phases of filling and backfilling operations.
- B. Compaction testing shall be performed by and independent materials testing company to ascertain the compacted density of the backfill materials in accordance with the following methods:
 - 1. Method: ASTM D2950, Nuclear Method
 - 2. One (1) per every 500 cubic yards of backfill and at least once daily.
- C. Acceptance Criteria: The sole criterion for acceptability of in-place fill shall be in situ dry density. Minimum dry density for all fill or backfill in paved areas shall be 95 percent of the maximum dry density. If a test fails to qualify, the fill shall be further compacted

and re-tested. Subsequent test failures shall be followed by removal and replacement of the material.

3.13 CLEAN UP

- A. Provide and maintain protections of newly filled areas against damage. Upon completion or when directed, correct all damaged and deficient work by building up low spots and remove temporary protections, fencing, shoring and bracing.
- B. Remove all surplus excavated material not required for filling and backfilling and legally dispose of the same away from premises.
- C. Leave the premises and work in clean, satisfactory condition, ready to receive subsequent operations.

END OF SECTION

SECTION 02505

ASPHALT PAVEMENT RECLAMATION

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.
- B. The requirements of State of Connecticut Department of Transportation (DOT) Standard Specifications Form 818 for Roads, Bridges and Incidental Construction, Section 4.03 and M.02.03 shall apply to this section.

1.02 DESCRIPTION OF WORK

- A. The Contractor shall provide all labor, materials, equipment, and services necessary for, and incidental to complete the Work indicated on Drawings, as specified herein or both. Work includes but is not limited to:
 - 1. Pulverize the in-place asphalt pavement and underlying material
 - 2. Spread and fine grade resultant mixture
 - 3. Compaction
- B. Related Work Specified Elsewhere:
 - 1. Section 02200: Earthwork
 - 2. Section 02510: Bituminous Concrete Payement

1.03 PROJECT CONDITIONS

- A. The Contractor shall accept the site in the condition in which it exists at the time of the award of the Contract.
- B. Notify the Engineer of any unexpected subsurface condition.

PART 2 PRODUCTS

2.01 MATERIALS

A. Reclaimed Aggregate Base

All pulverized material shall pass the 3-inch sieve. The reclaimed aggregate base shall meet the following gradation:

SIEVE SIZE	% PASSING
3"	98-100
1-1/2"	70-100
3/4**	55-90
#4	40-75
#40	10-30
#200	3-10
Residual A.C.	2-4

^{*}Gradation may vary due to local aggregate conditions.

Testing and Amendment: Reclaimed base material shall be inspected visually by the Owner and Engineer. The Owner may also elect to submit samples to a testing laboratory to verify conformance with the gradation specification.

PART 3 EXECUTION

3.01 EQUIPMENT

A. All reclaiming equipment must be owned by the Contractor or his subcontractor performing the reclaiming work. Grading and compaction may be provided by another subcontractor.

3.02 RECLAIMER

- A. Reclamation will be by means of a traveling rotary reclaimer or equivalent machine capable of cutting through existing asphalt at depths up to 12 inches, with one pass. The machine shall be self-propelled and equipped with an adjustable grading blade thus leaving its path generally smooth for traffic.
- B. Equipment such as road planners or cold milling machines which are designed to mill or shred the existing bituminous concrete rather than to crush or fracture it, are not considered capable of achieving specification gradation. The required and necessary action of the reclaimer will increase the percentage of fine aggregate. This machine is not intended for use on sub-bases with large

boulders or ledge. Existing bituminous concrete and gravel base must be pulverized and mixed so as to form a homogeneous mass of uniformly processed base material which will bond together when compacted.

3.03 SURFACE PREPARATION

A. Surface preparation, which may include removal of curbing, removal of visible cobbles; drainage; adjusting of street irons-valve covers, manhole covers, drop inlet gratings, catch basins; signs, mail boxes and guard rail resetting; etc., will be the responsibility of the Contractor.

3.04 PULVERIZATION PROCESS

A. The existing road pavement shall be pulverized and mixed with gravel base existing in the roadway foundation to a depth of 10". The pulverization shall blend the asphalt and base material into a homogeneous mass, utilizing the asphalt acquired from the existing pavement as a stabilizer to bond material together when compacted.

3.05 GRADING

A. A motor grader shall be used for shaping, fine grading and finishing the surface of the reclaimed material to form the surface prior to paving.

3.06 ROLLING

- A. Rolling equipment shall include a vibratory roller having the capability of producing high amplitude and low frequency vibrations.
- B. The compaction shall be a minimum of 95% of the proctor wet density (AASHTO T-180D).
- C. Initial rolling shall be done immediately following the second reclaimer pass, and again following fine grading.

END OF SECTION

SECTION 02510

BITUMINOUS CONCRETE PAVEMENT

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division I Specifications, apply to the work specified in this section.
- B. "State Specifications" or "DOT" referred to herein means the "State of Connecticut Department of Transportation Standard Specifications Form 818 for Roads, Bridges Facilities and Incidental Construction", including all supplements, latest edition. The word "Engineer" appearing in the State Specifications shall be understood to mean the Owner's representative. Articles dealing with the basis of payment shall be considered inapplicable to this contract.

1.02 DESCRIPTION OF WORK

- A. The work of this Section includes providing all labor, material, equipment and service required to complete the following work, as indicated on the Drawings and as specified herein:
 - 1. Saw cut of bituminous concrete pavement.
 - 2. Placement of reclaimed and processed aggregate base.
 - 3. Placement of bituminous concrete pavement.
 - 4. Bituminous concrete cape cod curbing.

B. Related Sections

- 1. Section 02200 Earthwork
- 2. Section 02505 Asphalt Pavement Reclamation
- 3. Section 02514 Portland Cement Concrete Pavement
- 4. Section 02580 Pavement Markings

1.03 ORDER OF CONSTRUCTION

- A. All work included in this Section must be coordinated with and adapted to the progress and order of construction of other sections.
- B. Barricades, common danger signs as required for protection of work of this section shall be erected. Convenient access to all parts of the area and maintenance of same shall be provided.

1.04 EXAMINATION OF CONDITIONS

A. The Contractor shall fully inform himself of existing conditions at the site before submitting his bid, and shall be 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. No claim for extra compensation or extension of time will be allowed on account of actual condition inconsistent with those assumed, except those conditions described in the General Conditions.

1.05 SUBMITTALS

- A. Minimum Quality Requirements shall conform to DOT Standard Specification Form 818 or latest edition.
- B. Material Certificates Bituminous concrete: Provide the Engineer with 2 (two) copies of materials certificates signed by the material producer and Contractor, certifying that each material item complies with, or exceeds, specified requirements.

1.06 JOB CONDITIONS

- A. Weather limitations
 - 1. Construct bituminous concrete pavement only when air temperature is above 40 degrees and when base is dry.
- B. Maintain subgrade in satisfactory condition and properly drained at all times.
- C. The Contractor shall place no paving or base course adjacent to curbs, manhole frames or other similar structures until they have been set to the proper grade. These curbs and structures shall be protected from damage.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Bituminous concrete shall conform to the following classes designated in the State Specifications.
 - 1. Wearing (top) course shall be bituminous concrete mix HMA S0.5 in accordance with DOT M.04.02 at thickness shown on drawings.
 - 2. Binder (base) course shall be bituminous concrete HMA S1 in accordance with DOT M.04.02 at thickness shown on drawings.

- 3. Bituminous concrete for curbing shall be in accordance with DOT M.04.02-1.
- 4. Asphalt emulsion for tack coat shall be RS-1H.
- B. Processed Aggregate Base: Shall be in accordance with DOT M.05.
- C. Reclaimed Aggregate Base: Shall be in accordance with Section 02505 Asphalt Pavement Reclamation.

PART 3 EXECUTION

3.01 SURFACE PREPARATION

- A. Remove and dispose of existing pavement and curbs in accordance with Section 02070 Demolition.
- B. Prepare subgrade surface to required line and grade. Do not begin paving work until deficient subbase areas have been corrected and are ready to receive paving.
- C. Sawcut edges of existing pavement to achieve straight line transitions between old and new pavement.
- D. Remove loose material from compacted subbase surface immediately before commencing paving operations.
- E. Any milled area that will not be exposed to live traffic for a minimum of 48 hours prior to paving shall require a vacuum sweeper truck in addition to, or in lieu of, mechanical sweeping. The vacuum sweeper truck shall have sufficient power and capacity to completely remove all millings from the roadway surface including any fine particles within the texture of the milled surface. Vacuum sweeper truck hose attachments shall be used to clean around pavement structures or areas that cannot be reached effectively by the main vacuum. Compressed air may be used in lieu of vacuum attachments if approved by the Engineer.
- F. Milled areas exposed to traffic shall be swept with a sweeper truck immediately before commencing pavement operations.
- G. Tack Coat: Apply to contact surfaces of previously constructed asphalt or Portland cement concrete and surfaces abutting or projecting into asphalt concrete pavement. Distribute at rate of 0.05 0.07 gallons per square yard of surface.
- H. Notify the Engineer of unsatisfactory or unstable conditions. Do not begin paving work until such conditions have been corrected and are ready to receive paving.

3.02 RECLAIMED/PROCESSED AGGREGATE BASE

- A. Processed Aggregate Base shall be furnished and installed in driveways and areas where the roadway is to be widened in accordance with Section 3.04 of Form 818 to the compacted thickness shown on the Drawings.
- B. Reclaimed Aggregate Base shall be furnished and installed in accordance with Section 02505 Asphalt Pavement Reclamation.

3.03 PLACING THE BITUMINOUS CONCRETE

- A. Bituminous concrete paving shall be placed and compacted in conformance with Section 4.06 of Form 818.
- B. General: Place bituminous concrete mixture on prepared base course, spread and strike off. Spread mixture at a temperature within 25 degrees F of the approved job mix formula. Place inaccessible and small areas by hand. Place each course to required grade, cross-section and compacted thickness.
- C. Joints: Joints between old and new pavement shall be sawcut with an approved power saw to ensure a continuous bond between adjoining work. Construct joints to have same texture density and smoothness as other sections of bituminous concrete course. Clean contact surfaces and apply tack coat.

3.04 ROLLING

- A. General: Begin rolling when mixture will bear roller weight without excessive displacement.
- B. Compact mixture with hot hand tampers or vibrating plate compactors in areas inaccessible to rollers.
- C. Breakdown rolling: 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. Second Rolling: Follow breakdown rolling as soon as possible, while mixture is hot. Continue second rolling until mixture has been thoroughly compacted.
- E. Finish Rolling: Perform finish rolling while mixture is still warm enough for removal of roller marks. Continue rolling until all roller marks are eliminated and the course has attained maximum density.

3.05 PROTECTION

A. After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened. Erect barricades to protect from traffic until mixture has cooled and attained its maximum degree of hardness.

3.06 BITUMINOUS CURB

- A. Construct curbs over compacted pavement surfaces in accordance with Section 8.15 of Form 818. Apply a tack coat at a rate of 0.05-0.07 gal/square yard unless pavement surface is still tacky and free from dust.
- B. Place curb materials to cross-section indicated or, if not indicated, to local standard shapes, by machine designed and manufactured for such use.

3.07 FIELD QUALITY CONTROL

- A. The Contractor shall be responsible for providing the services of an Independent Testing Company to perform in-place testing to verify conformance with respect to compaction. The Independent Testing Company shall provide certified copies of results to the Engineer.
- B. Compaction: In-Place density testing of bituminous concrete to confirm compaction to 95% by the nuclear method (ASTM 2950). Testing to be performed once every 200 feet or at least once daily.
- C. Surface Smoothness: The Contractor shall perform random spot-checks with a contractor-supplied 10-foot straightedge placed parallel to the centerline of the road to verify surface tolerances. The final surface will not be acceptable if it varies more than 1/4 inch from a ten foot straight edge. Any irregularity of the surface exceeding this limit shall be corrected.
- D. Uniformity: The paved surface of the mat and joints shall not exhibit segregation, rutting, cracking, disintegration, flushing or vary in compositions as determined by the Engineer.
- D. Thickness: In-place compacted thickness will not be acceptable if it varies more than 1/4" from what is shown on the Drawings.
- E. Repair or remove and replace unacceptable paving in accordance with Section 4.06 of Section 818 at Contractor's expense.

END OF SECTION

SECTION 02514

PORTLAND CEMENT CONCRETE PAVEMENT

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.
- B. "State Specifications" or "DOT" referred to herein means the "State of Connecticut Department of Transportation Standard Specifications Form 818 for Roads, Bridges Facilities and Incidental Construction", including all supplements, latest edition. The word "Engineer" appearing in the State Specifications shall be understood to mean the Owner's representative. Articles dealing with the basis of payment shall be considered inapplicable to this contract.

1.02 DESCRIPTION OF WORK

- A. Provide all labor, materials, necessary equipment and services to complete the Work indicated on Drawings, as specified herein or both. Work includes but is not limited to:
 - 1. Stenciled concrete paving.
 - 2. Concrete curb ramps.
 - 3. Concrete bases for site furnishings.
 - 4. Surface finish.
 - 5. Detectable Warning Strips
 - 4. Curing.
 - 5. Testing
- B. Related Work specified elsewhere:
 - 1. Section 02070 Demolition
 - 2. Section 02200 Earthwork
 - 3. Section 02870 Site Furnishings

1.03 QUALITY ASSURANCE

- A. Perform work in accordance with ACI 301.
- B. Concrete materials are to be supplied by the same supplier throughout the project.

- C. The Contractor shall provide and pay for all costs in connection with an approved independent testing facility to determine conformance of materials with the specifications, if at any time during the Work, materials appear unsuitable in the opinion of the Engineer.
- D. Installer shall have at least two years' experience with projects of similar scope and quality.
- E. Manufacturer of stenciled concrete products and finishes shall have at least three years' experience manufacturing products required.
- F. Stenciled concrete products and finishes shall be obtained from the same source throughout the Project.

G. Mock-up:

- 1. Provide 4' x 4' mock-up to demonstrate methods of obtaining consistent visual appearance using materials and methods to be used in actual work.
- 2. Locate mock-up on-site in an area approved by the Owner.
- 3. Accepted mock-up constitutes visual standard for work.
- 4. Mock-up may remain.

1.04 SUBMITTALS

A. Concrete:

- 1. The Contractor shall furnish the name and location of the concrete supplier.
- 2. Submit the design mix for each class of concrete prior to use in the Work.
- B. Product data for proprietary materials and items, including reinforcement and forming accessories, admixtures, patching compounds, waterstops, joint systems, curing compounds, fly ash, hardener and releasing agents, sealer, and others as requested by Engineer.
- C. Samples for Initial Selection: Stencil catalog and manufacturer's color charts.
- D. Samples for Verification: For each type of exposed color, pattern, or texture indicated.
- E. Field quality control reports. The testing laboratory shall submit written reports of all tests, investigations, and recommendations to the Contractor and the Engineer.

PART 2 PRODUCTS

2.01 BASE MATERIALS

- A. Processed Aggregate Base: Aggregate meeting the requirements of DOT M.05.01. For use as sidewalk base.
- B. Reclaimed Aggregate Base: Aggregate meeting the requirements of Section 02505 Asphalt Pavement Reclamation. For use as sidewalk base.

2.02 CONCRETE MATERIALS

- A. Portland Cement Concrete shall conform to Class F in accordance with DOT M.03.01.
- B. Use accelerating admixtures in cold weather only when approved by an Engineer.
- C. Use set-retarding admixtures during hot weather only when approved by an Engineer.
- D. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
- E. Air Entrainment admixtures shall conform to DOT M.03.01.

2.03 SURFACE COLORING MATERIALS

- A. Pigmented Mineral Dry-Shake Hardener: ASTM C 979, Factory-packaged, dry combination of portland cement, graded quartz aggregate, color pigments, and plasticizing admixture. Use color pigments that are finely ground, nonfading mineral oxides interground with cement.
 - 1. Product: Brickform Color Hardener
 - 2. Color: Medium Gray or approved equal.
- B. Pigmented Powder Release Agent: Factory-packaged, nonfading finely-ground, streak free, colored powder that facilitates release of stamps and textured rollers from colored concrete and imparts a secondary accent color.
 - 1. Product: Brickform Antique Release
 - 2. Color: Medium Gray or approved equal.

2.04 STENCIL MATERIALS

A. Stencils: Manufacturer's standard, moisture-resistant paper or reusable plastic stencils, designed for use on plastic concrete.

- 1. Product: Brickform paper stencil
- 2. Pattern: Bushrock with average stone size = 16"x10" and joint width = $\frac{1}{2}$ "

2.05 PREMOULDED EXPANSION JOINT FILLER

- A. 1/2" premoulded expansion joint filler conforming to AASHTO M 213.
- B. The premoulded expansion joint filler shall be "pre-cut" to match the concrete sidewalk or slab cross-sectioned dimensions as detailed on the Drawings.

2.06 SEALANTS

- A. Clear, Solvent-Borne, Membrane-Forming Curing and Sealing Compound: ASTM C 309, non-yellowing, VOC-Compliant, high-gloss, clear liquid, Super Diamond Clear 350 by Euclid Chemical Company, or approved equal.
- B. Joint Sealant: ASTM C 920 self-leveling, premium grade polyurethane sealant: color gray.

2.07 **FORMS**

- A. Forms shall be of wood or steel, straight of sufficient strength to resist springing during depositing and consolidating concrete, and of a height equal to the full depth of the finished sidewalk, slab or stair section.
- B. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and that will not impair subsequent treatments of concrete surfaces.

2.08 DETECTABLE WARNING STRIP

A. Detectable warning strips shall be prefabricated detectable warning tile chosen from the Department of Transportation's Qualified Products List.

PART 3 EXECUTION

3.01 INSPECTION

- A. Verify compacted base is ready to support concrete and imposed loads.
- C. Verify gradients and elevations of base are correct.
- D. Beginning of installation means acceptance of existing conditions.

- E. The Contractor shall notify the Engineer 24 hours before placing concrete in order to give the Engineer an opportunity to inspect the formwork, reinforcing and related items prior to placement of the concrete.
- F. Delivery tickets shall show the amount of cement, brand, and amount of all admixtures. Water added on the job shall be approved and the amount noted on the delivery ticket and initialed by the Contractor.

3.02 PREPARATION

- A. Moisten base to minimize absorption of water from fresh concrete.
- G. When connecting new concrete sidewalk to a section of existing concrete sidewalk, the connection point shall be at the nearest joint in the existing sidewalk.

3.03 FORMING

- A. Place and secure forms to correct location, dimension and profile.
- B. Assemble formwork to permit easy stripping and dismantling without damaging concrete.
- C. Place joint fillers vertical in position, in straight lines. Secure to formwork during concrete placement.
- D. Earth cuts may not be used as forms for vertical surfaces.
- E. All forms shall be built mortar tight and of materials sufficient in strength to hold concrete without bulging between supports. Forms shall be maintained to eliminate the formation of joints due to shrinkage of the forms. Concrete, misshapen by bulges or deformations caused by inadequate forms, shall be removed or corrected as ordered by the Engineer. All replacements or corrections shall be made at the Contractor's expense.
- F. All surfaces of wooden forms that will be in contact with exposed concrete shall be thoroughly treated with an approved lacquer in the procedure recommended by the manufacturer. Forms so treated shall be protected from being damaged or dirtied prior to placing of the concrete.
- G. Metal forms shall be treated with an approved form lacquer or may be treated with an approved form oil. The metal used for forms shall be of sufficient thickness to remain true to shape. All bolt and rivet heads shall be designed to hold the forms rigidly together and to allow removal, without injury to the concrete. Metal forms which do not have smooth surfaces, correct alignment and clean surfaces shall not be used.

H. Side forms shall not be removed for less than 12 hours after finishing has been completed.

3.04 FORMED JOINTS

- A. Place expansion joints at intervals shown on drawings to correct elevation and profile.
- B. Place joint filler between paving components and building or other appurtenances.
- C. Provide tooled joints at intervals shown on drawings for walks.

3.05 PLACING CONCRETE

- A. Place concrete in accordance with ACI 301.
- B. Hot Weather Placement: ACI 305.
- C. Cold Weather Placement: ACI 306.
- C. Do not add water to concrete during delivery or at Project site. Do not add water once placing has begun.
- D. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.
- E. Ensure reinforcement, inserts, embedded parts and formed joints are not disturbed during concrete placement.
- F. Place concrete continuously between predetermined construction joints. Do not break or interrupt successive pours such that cold joints occur.
- G. Screed paving surface with a straightedge and strike off.

3.06 INITIAL FINISHING

- A. Commence initial floating using bull floats or darbies to impart an open-textured and uniform surface plane before excess moisture or bleedwater appears on the surface. Do not further disturb concrete surfaces before beginning finishing operations or spreading surface treatments
- B. All slab edges, including those at formed joints, shall be finished carefully with an edger having a radius of 1/4 inch. Corner and edges which have crumbled and areas which lack sufficient mortar for proper finishing shall be cleaned and filled solidly with a properly proportioned mortar mixture and then finished.

3.07 STENCILING

- A. Cut stencils to slab width and lay on wet concrete. Overlap "mortar joint" on trailing edge of each section of stencil onto leading "mortar joint" of previous section.
- B. Trim stencils to fit slab and adjacent patterns.
- C. Slightly embed stencil into concrete by rolling with stencil roller.
- D. Apply pigmented mineral dry-shake hardener materials to concrete surfaces according to manufacturer's written instructions.

E. Stencil Rolling:

- 1. Apply pigmented powder release agent according to manufacturer's written instructions prior to applying texture roller to surface of concrete.
- 2. Perform rolling operation to produce required texture on concrete surface.
- F. Remove stencils when concrete has sufficiently cured to bear weight. Do not leave stencils in concrete overnight.
- G. Remove debris with mechanical blower prior to application of curing compound. If release agent is applied, delay removal of debris for 24 hours, then flood area with low-pressure water hose, wetting release agent, and follow by cleaning surface with pressure washer.

3.08 CURING AND PROTECTION

- A. Immediately after placement, protect concrete from premature drying, excessive hot or cold temperatures, and mechanical injury.
- B. Cure decorative cement concrete according to manufacturer's instructions.
- C. Curing and Sealing Compound: Apply uniformly in continuous operation by sprayer or short nap roller in accordance with manufacturer's instructions. After initial application is dry and tack free, apply a second coat.
 - 1. Do not over apply or apply in a single heavy coat.
 - 2. Thoroughly mix flatten paste in curing and sealing compound according to manufacturer's instructions. Stir occasionally to maintain uniform distribution of paste.
 - 3. Thoroughly mix slip-resistant additive in sealing compound according to manufacturer's instructions. Stir occasionally to maintain uniform distribution of paste.

3.09 SEALING JOINTS

- A. At the end of the curing period, expansion joints shall be carefully cleaned and filled with joint sealer. Concrete at the joint shall be surface dry, and the atmospheric and pavement temperatures shall be above 50 degrees F, at the time of application.
- B. Joints shall be filled flush with the concrete surface in such manner as to minimize spilling on the concrete surface. Spilled sealing material shall be removed immediately and the surface of the walk or slab cleaned. False joints shall not be sealed.

3.10 FIELD QUALITY CONTROL

- A. The Contractor shall be responsible for providing the services of an Independent Testing Company to field testing of concrete materials to verify conformance with these specifications.
- B. The Independent Testing Company shall provide certified copies of results to the Engineer.
- C. Testing company personnel shall collect cylinders to test compressive strength of concrete per AASHTO T22 at a frequency of 4 cylinders per 75 cubic yards or two per day, whichever is greater.

3.11 DETECTABLE WARNING STRIP

- A. Install detectable warning strip according to plans and the manufacturer's specifications.
- B. Detectable warning strips shall be set directly in concrete, and each tile shall be weighed down to prevent the tile from floating after placement in wet concrete.

END OF SECTION

SECTION 02518

CEMENT BASED SKIM COAT

PART 1 GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 DESCRIPTION OF WORK

- A. Provide all labor, materials, necessary equipment and services to complete the Work indicated on Drawings, as specified herein or both. Work includes but is not limited to:
 - 1. Skim Coat Existing Concrete Block Wall
- B. Related Work specified elsewhere:
 - 1. Section 02070 Demolition
 - 2. Section 02200 Earthwork

1.03 SUBMITTALS

- A. Product data for approval prior to ordering.
- B. Color selection for approval by the Owner prior to ordering.

PART 2 PRODUCTS

2.01 MATERIALS

A. Portland Cement based skim coat for applications to exterior walls: SkimWallTM by Silpro, LLC or approved equal.

PART 3 EXECUTION

3.01 SURFACE PREPARATION

- A. The surface must be hard, sound, dry and free of dust, dirt, oils, grease and other materials.
- B. Scrape and/or wire brush existing wall to remove existing flakes and loose debris.
- C. Clean existing surface with degreasing soap, rinse with water, and allow to completely dry.
- D. Perform any other surface preparation per the manufacturer's installation instructions.

3.02 INSTALLATION

- A. Apply skim coat in accordance with the manufacturer's installation instructions to a thickness of 1/8" to 1/4".
- B. Clean up in accordance with manufacturer's instructions.

END OF SECTION

SECTION 02580

PAVEMENT MARKINGS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Specification Sections, apply to this Section.
- B. "State Specifications" or "DOT" referred to herein means the "State of Connecticut Department of Transportation Standard Specifications Form 818 for Roads, Bridges Facilities and Incidental Construction", including all supplements, latest edition. The word "Engineer" appearing in the State Specifications shall be understood to mean the Owner's representative. Articles dealing with the basis of payment shall be considered inapplicable to this contract.

1.02 DESCRIPTION OF WORK

- A. Provide all labor, materials, necessary equipment and services to complete Work indicated on Drawings, as specified herein or both. Work includes but is not limited to:
 - 1. New painted pavement markings on finished surfaces.

1.03 SUBMITTALS

A. One (1) manufacturer's label including product analysis for each paint type and color.

1.04 SITE CONDITIONS

- A. Perform the painting operations at such time so as not to interfere with the flow of traffic. Coordinate with Owner. Provide temporary barriers to prevent vehicles from driving over newly painted areas.
- B. Apply paint on dry, clean pavement surface, when the air temperature is above 40°F, and is expected to remain above 40°F for the next 4 hours.

1.05 SEQUENCING AND SCHEDULING

A. Schedule pavement marking to follow the completion of paved surfaces.

PART 2 PRODUCTS

2.01 MATERIALS

A. Paint for permanent line striping shall be Waterborne Pavement Marking Paint in accordance with DOT M.07.20.

PART 3 EXECUTION

3.01 SURFACE PREPARATION

- A. Remove dust, dirt, and other foreign material detrimental to paint adhesion.
- B. Paint shall not be applied on wet pavement.
- C. Mark layout of pavement markings with chalk or paint prior to final application.

3.02 APPLICATION

- A. Apply pavement markings using commercial spray striping machine capable of applying an even coating at the manufacturer's recommended thickness in an even width across the stripe.
- B. Apply marking paint at a rate of one (1) gallon per 100 to 115 square feet.
- C. All painting shall be performed in a neat and workmanlike manner. The lines shall be sharp and clear with no feathered edging or fogging and precautions shall be taken to prevent tracking by tires of the striping equipment.
- D. Apply stripes straight and even in accordance with plans.

END OF SECTION

SECTION 02605

DRAINAGE STRUCTURES

1.00 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Specification Sections, apply to this Section.
- B. "State Specifications" or "DOT" referred to herein means the "State of Connecticut Department of Transportation Standard Specifications Form 818 for Roads, Bridges Facilities and Incidental Construction", including all supplements, latest edition. The word "Engineer" appearing in the State Specifications shall be understood to mean the Owner's representative. Articles dealing with the basis of payment shall be considered inapplicable to this contract.

1.02 SCOPE OF WORK

- A. Provide all labor, materials, necessary equipment and services to complete Work indicated on Drawings, as specified herein or both. Work includes but is not limited to:
 - 1. Installation of catch basins and drainage structures.
 - 2. Alteration of existing drainage structures.
- B. Related Work Specified Elsewhere:
 - 1. Section 02200: Earthwork
 - 2. Section 02510: Bituminous Concrete Pavement
 - 3. Section 02610: Buried Pipe Installation

1.03 QUALITY ASSURANCE

- A. All items shall be new, clean and in accordance with material specifications. In no instance shall second-hand or damaged materials be acceptable.
- B. All materials being incorporated into the work of this Section will be approved by the Engineer. Approval of materials may be by certification, written permission of the Engineer, or prior test and/or inspection. All work in which materials are used without: (1) approved certification, (2) written permission of the Engineer or (3) prior test and/or inspection may be considered unauthorized and therefore not paid for.

1.04 SUBMITTALS

- A. Submit manufacturer's catalog cuts, specifications, and installation instructions for approval prior to ordering.
- B. Submit the following Shop Drawings for approval prior to ordering:
 - 1. Design and construction details of all precast concrete units.
 - 2. Fabrication, assembly and installation details for all castings and miscellaneous metal works.

1.05 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to the site in a timely manner to prevent interruption of the Work.
- B. All materials shall be inspected by the Contractor upon delivery to the site. The Contractor shall notify the Engineer of any loss or damages. Replace loss or repair damage to new condition at the Contractor's expense.
- C. Store materials to allow easy access for inspection and identification.
- D. Equip and protect factory-fabricated structures to prevent damage, including chipping and cracking during transportation, storage and handling. Do not install damaged units; remove and replace damaged units from project site at the Contractor's expense.

2.00 PRODUCTS

2.01 MATERIALS

A. Structures

- 1. Provide watertight precast concrete structures in types and sizes indicated on Drawings and as detailed in Shop Drawings approved by the Engineer.
- 2. All precast sections shall be designed for H-20 loading.
- 3. Precast concrete structures shall conform to DOT M.08.02 (4).
- 4. Precast structure bases shall be of the "base unit" type, with an integral base and riser section. The risers shall be constructed in increments of one (1) foot to provide the indicated height with the fewest joints. Openings for pipe connections will not be permitted closer than one (1) foot to the nearest joint. Mark the date of manufacture and name of trademark of manufacturer in the inside of each section.

- 5. Precast catch basin concrete tops with steel frames and grates shall conform to DOT M.08.02 (4) and (5).
- 6. Joints for precast units shall be rubber O-ring gaskets (ASTM C443) or butyl rubber gaskets (ASTM C443), or mastic joint sealer consisting of a homogenous blend of bitumen, inert filler and suitable solvent approved by the Engineer. The mastic joint sealer shall be used in accordance with the recommendations of the manufacturer.
- 7. Connections to catch basins shall be made with stainless steel, double banded, rubber boots cast into the manhole wall.

B. Accessories

- 1. Concrete building block shall conform to the requirements of ASTM C55.
- 2. Brick for building up and leveling frames and covers shall conform to ASTM C32 Grade MS.
- 3. Mortar shall conform to DOT M.11.04.
- 4. Neoprene seal assembly for connection to existing structures shall be Kor-N-Seal assembly or approved equal.

3.00 EXECUTION

3.01 EXCAVATION

A. Excavation shall be in accordance with Section 02200 - Earthwork.

3.02 PRECAST STRUCTURES

- A. Base units shall be placed on bedding material (thickness and type as shown on plans), and be set at the proper elevation, carefully leveled, and aligned.
- B. Riser units shall be set vertical with steps (if applicable) and sections in proper alignment. Joints shall be installed in accordance with item 2.01 (A) (6) above and manufacturer's recommendations.
- C. Lifting holes shall be sealed tight with non-shrink grout or non-shrinking grout in combination with a tapered solid rubber plug driven into the hole and the remaining void filled with grout on the outside only. Inside to be finished flush.
- D. All work shall be protected against flooding and flotation. Dewater construction as necessary to provide a dry, stable base for setting of structure.

3.03 GRADE RINGS

- A. Grade rings shall be designed to meet H-20 loading requirements.
- B. Grade rings shall be placed in a combined thickness of at least 6 inches but not more than 20 inches, in order to bring the manhole frame to proper grade.
- C. Consecutive grade ring layers shall be laid on an even mortar bed.

3.04 PIPE CONNECTIONS

- A. Pipe connections to structures shall be installed true to line and grade as shown on the Drawings. Wall fittings shall be watertight, compatible with the sewer pipe joint. Connections shall conform to the details shown on the Drawings.
- B. Connections to Existing Manholes:
 - 1. The Contractor shall make connections to existing manholes as shown on the Drawings or as specified herein.
 - 2. For connections to precast or cast-in-place concrete manholes, the Contractor shall core drill a hole one (1) inch larger than the O.D. of the sewer pipe into the existing manhole at the location and elevation shown on the Drawings.
 - 3. For connections to masonry manholes, the Contractor shall open the sidewall of the existing manhole by removing masonry units no more than necessary to accommodate the sewer pipe.
 - 4. Connection methods shall be in accordance with the details shown on the Drawings. Any open spaces around the new pipe entry shall be sealed with mortar to prevent leakage.
 - 5. The existing bench and channel shall be removed and reconstructed to permit flow through the manhole as it now exists and also for the new sewer pipe. Bench and channel reconstruction shall conform to the details on the Drawings, or as directed by the Engineer.
 - 6. The Contractor shall be responsible for diverting flow through the manhole in order to allow connection and bench and channel construction.

3.05 FRAMES

A. Frames shall be firmly set and bonded at the proper grade to conform to the finished grade shown on the Drawings.

B. Frames shall be built up to finish grade using brick and mortar. Mortar shall be parged to provide a smooth finish on the interior of the manhole.

3.06 CHANGING ELEVATIONS OF EXISTING STRUCTURES

- A. Raise or lower the existing catch basin tops and manhole frames and covers by the addition or removal of appropriate masonry courses, to the elevations shown on the Drawings or as directed by the Engineer.
- B. Parge the exterior surface with mortar when masonry courses are added or when the exterior surface is disturbed.
- C. Frames and covers damaged during the Work shall be replaced at the Contractor's expense.

3.07 WATERTIGHTNESS

A. All structures shall be free of visible leakage. Each manhole shall be inspected, and all leaks shall be repaired in a manner approved by the Engineer.

3.08 CLEAN-UP

A. Each structure shall be cleaned of accumulated silt, debris, or foreign matter prior to acceptance of the Work.

END OF SECTION

SECTION 02610

BURIED PIPE INSTALLATION

1.00 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.
- B. "State Specifications" or "DOT" referred to herein means the "State of Connecticut Department of Transportation Standard Specifications Form 818 for Roads, Bridges Facilities and Incidental Construction", including all supplements, latest edition. The word "Engineer" appearing in the State Specifications shall be understood to mean the Owner's representative. Articles dealing with the basis of payment shall be considered inapplicable to this contract.

1.02 SCOPE OF WORK

- A. Provide all labor, materials, necessary equipment and services to complete Work indicated on Drawings, as specified herein or both. Work includes but is not limited to:
 - 1. Installation of storm sewer pipe.
 - 2. Installation of subsurface infiltration system.
- B. Related Work Specified Elsewhere:
 - 1. Section 02200: Earthwork
 - 2. Section 02605: Drainage Structures

1.03 QUALITY ASSURANCE

- A. All piping, fittings, and appurtenances shall be new, clean and in accordance with material specifications. In no instance shall second- hand or damaged materials be acceptable.
- B. All materials being incorporated into the work of this Section will be approved by the Engineer. Approval of materials may be by certification, written permission of the Engineer, or prior test and/or inspection. All work in which materials are used without: (1) approved certification, (2) written permission of the Engineer or (3) prior test and/or inspection may be considered unauthorized and therefore not paid for.

1.04 SUBMITTALS

- A. Submit product data and manufacturer's instructions to the Engineer for approval prior to ordering pipe, fittings and associated materials.
- B. Submit shop drawings of the final proposed subsurface infiltration system prepared by the manufacturer.

1.05 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Delivery and Storage:

- 1. Pipe, fittings, special appurtenances and accessories shall be delivered to and stored within the Contractor's work limits as shown on the Drawings.
- 2. Special care shall be exercised during delivery and storage to avoid damage to the products.
- 3. Products shall be stored so as to avoid unnecessary handling and in locations where they will not interfere with the Owner's operations or public travel.

B. Handling:

- 1. Pipe, fittings, special appurtenances and accessories shall be handled carefully with approved handling devices in strict conformance with the manufacturer's recommendations.
- 2. Products shall not be dropped or rolled off trucks, nor shall products be otherwise dragged, rolled or skidded.
- 3. Products cracked, gouged, chipped, dented or otherwise damaged will not be approved and shall be removed and replaced at the Contractor's expense, unless the product can be repaired in a manner acceptable to the manufacturer and Engineer. All repairs shall be at the Contractor's expense.

1.06 PROJECT RECORD DOCUMENTS

- A. Accurately record location of pipe runs, connections, manholes, cleanouts and invert elevations.
- B. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

2.00 PRODUCTS

2.01 MATERIALS

- A. Reinforced Concrete Pipe (RCP):
 - 1. Provide only new reinforced concrete pipe and fittings. In no case will secondhand or damaged material be acceptable.
 - 2. Reinforced concrete pipe shall comply with the requirements of AASHTO M 170 Class IV, in accordance with DOT M.08.01.
 - 3. Joints: Provide bell and spigot joints, sealed with an elastomeric gasket conforming to the requirements of ASTM C443. The bell and spigot shall be designed to enclose the gasket on all surfaces when the joint is in its final position.
 - 4. Joints shall be designed so as to permit effective jointing to reduce leakage and infiltration and to permit placement without appreciable irregularities in the flow line.
- B. Corrugated Polyethylene Pipe w/ Smooth Bore (CPEP-S):
 - 1. Pipe:
 - a. Pipe shall be high-density polyethylene pipe (HDPE) Sure-Lok® F477 as manufactured by Hancor®, or approved equal, and shall conform to the requirements of AASHTO M-294.
 - b. Pipe and fittings shall be made of polyethylene compounds which conform to the physical requirements of Type III, Category 3, 4 or 5, P23, P33, or P34, Class C per ASTM D-1248 with the applicable requirements defined in ASTM D-1248. Clean reworked material may be used.
 - c. All pipe shall be of the sizes on the drawings specified.
 - d. Pipes shall have a smooth wall interior with a manning's "n" value of 0.012 or less.

2. Couplings:

- a. Field joints shall be made with standard bell and spigot ends or HDPE band couplers in accordance with manufacturer's recommendations.
- b. Couplers and pipe shall be from the same manufacturer.

- c. Couplers shall be corrugated to match the pipe corrugations and the width shall not be less than one-half the nominal diameter of the pipe. Split couplers shall be manufactured to engage an equal number of corrugations on each side of the pipe joint.
- d. One half-inch diameter galvanized steel bolts and nuts shall be used on coupling bands.
- C. Flexible Couplings: Couplings installed between pipes of differing materials and/or sizes shall be Fernco flexible couplings or similar manufactured from virgin elastomeric plastic with two type C-305 stainless steel adjustable clamps to provide a permanent leakproof seal quickly with a screw driver to torque wrench.

3.00 EXECUTION

3.01 GENERAL

- A. Installation of all pipe, fittings, and appurtenances shall be subject to the review and/or approval of the Engineer.
- B. Install piping as shown, specified and as recommended by the manufacturer and in conformance with referenced standards, and approved Shop Drawings.
- C. Present all conflicts between piping systems and equipment, structures or facilities to Engineer for determination of corrective measures before proceeding.
- D. Take field measurements where required prior to installation to ensure proper fitting of Work. The Contractor shall uncover the existing pipelines sufficiently in advance of the proposed Work in order that the type and location of the existing pipes and joints and other information required to fabricate the proposed piping can be determined. It shall be the responsibility of the Contractor to obtain whatever information is required to complete the connections of the proposed pipelines to the existing pipelines.
- E. All piping shall be carefully examined for cracks, damage or other defects before installation. Defective materials shall be immediately removed from the site, unless the defective product can be repaired in a manner acceptable to the manufacturer and Engineer. Any piping found to be broken or defective after it has been installed shall be removed, replaced or repaired at the Contractor's expense.
- F. Interior of all piping and mating surfaces shall be inspected and all dirt, gravel, sand, debris or other foreign material shall be completely removed from the interior and mating surfaces before installation. Measures shall be taken to maintain the interior of all piping clean until acceptance of the completed Work. Care shall be taken to prevent foreign matter from entering joint space.

- G. Install buried piping accurately to line and grade shown, specified or directed, unless otherwise approved by the Engineer. Accurate means of determining and checking the alignment and grade shall be used, which shall be subject to the approval of the Engineer. Remove and relay piping that is incorrectly installed at Contractor's expense.
- H. Do not lay piping in water, unless approved by the Engineer. Ensure that the water level in the trench is at least 6 inches below the bottom of piping. Maintain a dry trench until jointing and backfilling are complete, unless otherwise specified in these Specifications or approved by the Engineer.
- I. Start laying piping at lowest point and proceed toward the higher elevations, unless otherwise approved by the Engineer. Slope piping uniformly between elevations shown on the Drawings or as otherwise provided by the Engineer.
- J. Piping shall be installed so that the barrel of the piping and not the joints, receives the bearing pressure from the trench bottom, or other bedding condition.
- K. No piping shall be brought into position until the preceding length, valve, or fitting has been bedded and secured in place.
- L. Whenever pipe laying is not actively in progress, the open ends of the piping shall be closed by a temporary plug or cap to prevent soil, water and other foreign matter from entering the piping.
- M. Blocking under piping will not be permitted unless specifically approved by Engineer for special conditions.
- N. Piping shall be rotated as required to place perforations and/or outlets in proper position.

3.02 INSPECTION

- A. Verify that trench cut excavation base is ready to receive work, and the excavations, dimensions and elevations are as indicated on Drawings.
- B. Beginning of installation implies Contractor's acceptance of existing conditions.
- C. Inspect all pipe and fittings prior to laying in the trench. Remove defective pipe and fittings from the site.
- D. Do not backfill until inspection by the Engineer, unless otherwise approved by the Engineer.

3.03 PIPE INSTALLATION

- A. Install all piping and couplings in accordance with manufacturer's recommendations.
- B. Pipe with bell and spigot joints shall be laid with bells upstream.
- C. Completely clean all jointing surfaces and adjacent areas prior to making joint.
- D. For shorter than standard pipe lengths, field cuts may be made. Ends shall be cut square and perpendicular to the pipe axis. Spigots shall have burrs removed and ends smoothly beveled. Field spigots shall be stop marked with a felt tip mark or wax crayon for proper length of assembly insertion. The angle and depth of field bevels, and lengths to stop marks, shall be comparable in quality to factory made spigots.
- E. Assemble all joints in accordance with recommendations of the manufacturer. If a lubricant is required to facilitate assembly it shall have no detrimental effect on the gasket or on the pipe when subjected to prolonged exposure.
- F. Proper jointing may be verified by rotation of the spigot by hand or with a strap wrench. If unusual joining resistance is encountered or if the insertion mark does not reach the flush position, disassemble the joint, inspect for damage, reclean the joint components and repeat the assembly steps.
- G. If necessary, use a bar and wood blocking to properly seat pipe joints. DO NOT USE BACKHOE BUCKET, OR SIMILAR MACHINERY, TO FORCE JOINT ASSEMBLY.

3.04 BEDDING AND BACKFILLING

- A. Piping shall be bedded and installed in conformance with Section 02200 "Earthwork" and as shown on the Drawings, except as otherwise specified.
- B. Excavation in excess of that required as shown on the Drawings or specified, which is not authorized by the Engineer, shall be at the Contractor's expense. Backfilling and compaction of the over-excavated areas shall be at the Contractor's expense.

END OF SECTION

SECTION 02870

SITE FURNISHINGS

1.00 GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Specification Sections, apply to this Section.

1.02 SCOPE OF WORK

- A. Provide site furnishings as shown and specified. The work includes:
 - 1. Bicycle Rack
 - 2. Picnic Table
 - 3. Patio Umbrella
 - 4. Patio Chairs
 - 5. Concrete Checkboard Table
 - 6. Benches
 - 7. Trash Receptacle
 - 8. Planter

1.03 SUBMITTALS

A. Submit manufacturer's product data for each type of site furnishing required.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Deliver site furnishings in the manufacturer's original packaging with tags and labels intact and legible. Handle and store material to prevent damage and deterioration.

1.05 PROJECT CONDITIONS

- A. Build-in footings and other items required before final grading and surfacing is completed. Do not begin final installation of site furnishings before completion of final grading or surfacing.
- B. Final location of site furnishings to be coordinated with Owner.

2.00 PRODUCTS

2.01 MATERIALS

A. Bicycle Rack: Park-It Bike Rack, 5-bike surface mount rack, Model #7ZT7041

SITE FURNISHINGS 02870-1

compatible surface mount covers and mounting hardware as manufactured by TreeTop Products. Finish: Black Onyx Powder Coat.

B. Picnic Tables:

- 1. Standard Table: Model #07SA2846, 46" Round Table, Steel tabletop and bench seats with thermoplastic coating and black powder-coated steel frame as manufactured by TreeTop Products. Color: Black.
- 2. Accessible Table: Model #07SA2847, 46" Round ADA Table, Steel tabletop and bench seats with thermoplastic coating and black powder-coated steel frame as manufactured by TreeTop Products. Color: Black.

C. Patio Umbrella:

- 1. Umbrella: Model #05UF2515, 9' Octagon Umbrella with pulley and pin lift, as manufactured by Barco Products. Fabric color: Black. Pole color: Black.
- 2. Umbrella Base: Model #05UF2531, 20" dia. x 9" high round steel base as manufactured by Barco Products. Color: black.
- D. Patio Chairs: Model #02EJ2951, Set of 4 stackable, cast aluminum armchairs as manufactured by Barco Products. Finish: Speckled Black Powder Coat.
- E. Concrete Checkerboard Table: Decorative concrete table with checkerboard as manufactured by Bad Ass Tools, Somers, CT (860) 749-0740 or email badasstools@att.net.
- F. Benches: Model #CV1-1200-PF, 6' long, CityView arch backed steel bench with steel bar ends as manufactured by SiteScapes. Finish: Powder Coat, Forest Green
- G. Trash Receptacle: Model #CV2-3001-PF, CityView 32 gallon capacity, dome top waste receptacle as manufactured by SiteScapes. Finish: Powder Coat, Forest Green.
- H. Planter: Model #CV4-1000-PF, CityView 30" dia. flair top planter as manufactured by SiteScapes. Finish: Powder Coat, Forest Green.

2.02 FOUNDATIONS

- A. Furnishings shown in lawn areas shall be placed on a pre-cast or cast-in-place concrete base. The size of the base shall be as shown on the Drawings.
- B. Concrete bases shall be Portland Cement, Class F Concrete furnished and installed in accordance with Section 02514 PORTLAND CEMENT CONCRETE PAVEMENT.
- C. Hardware for securing furnishings to the concrete base shall be stainless steel anchor bolts, sized per the manufacturer's recommendations.

SITE FURNISHINGS 02870-2

D. Concrete bases for furnishings shall be broom finished.

3.00 EXECUTION

3.01 PREPARATION

- A. Examine subgrades, finished surfaces, and installation conditions. Do not start site improvements work until unsatisfactory conditions are corrected.
- B. Locate and layout all site improvements. Obtain Owner's acceptance of layout prior to installation.

3.02 INSTALLATION OF SITE IMPROVEMENTS.

- A. Locate site improvements equipment at the lines and grades shown on the Drawings and according to the specifications of the manufacturer of the equipment. All minimum dimensions shall be met. If minimum dimensions are not met by the Contractor, they shall remove and relocate any or all equipment at no additional cost to the Owner. Assemble and install equipment in accordance with manufacturer's recommendations.
- B. Install concrete bases for tables and benches to be placed in lawn areas in accordance with Section 02514 PORTLAND CEMENT CONCRETE PAVEMENT.
- C. Install equipment in or on concrete foundations as shown and as recommended by manufacturer. Secure benches and tables to concrete bases with manufacturer supplied stainless steel hardware.

3.03 CLEANING

A. Perform cleaning during installation of the work and upon completion of the work. Remove from site all debris and equipment. Repair all damage resulting from site improvements installation.

END OF SECTION

SITE FURNISHINGS 02870-3

SECTION 02930

SEEDING

PART 1 GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division I Specifications, apply to the work specified in this Section.

1.02 DESCRIPTION OF WORK

A. The Contractor shall provide all labor, materials, equipment, and services necessary for, and incidental to, the restoration of lawn areas disturbed by the Work.

1.03 SUBMITTALS

- A. Submit manufacturer's or vendor's certified analysis for soil amendments and fertilizer materials.
- B. Submit vendor's certified analysis for each grass seed mixture required, stating botanical and common name, percentages by weight, percentages by purity, germination, weed seed, year of production, date of packaging, and location of packaging.
- C. Submit results of topsoil analysis to ascertain percentage of nitrogen, phosphorus, potash, soluble salt content, organic matter content, and pH value.
- D. The Contractor shall furnish samples (min. 10 lb) of landscape stone to the Owner and Engineer for approval prior to ordering. Landscape stone shall match size and color existing landscape stone.
- E. Maintenance Instructions: Submit instructions recommending procedures to be established for maintenance of landscaped work for one (1) full year. Include cutting method and maximum grass height: types, application frequency and recommended coverage of fertilizer; and other pertinent information.

1.04 QUALITY ASSURANCE

- A. The Contractor shall provide and pay for all costs in connection with an approved independent testing facility to determine conformance of materials with the specifications.
- B. Comply with regulatory agencies for fertilizer and herbicide composition.
- C. Package standard products with the manufacturer's certified analysis.

1.05 DELIVERY, STORAGE AND HANDLING

A. Deliver packaged materials in containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery, and while stored at site.

1.06 WARRANTY

A. Provide one-year warranty from date of seeding. If continuous grass ground cover does not develop, Contractor shall re-seed as required.

1.07 MAINTENANCE SERVICE

A. Begin maintenance of seeded areas immediately after planting and continue until termination of warranty period. Provide temporary mulch if necessary. Fertilize and water to establish dense grass area.

PART 2 PRODUCTS

2.01 MATERIALS

- A. TOPSOIL
 - 1. Topsoil shall be as specified in Section 02200 Earthwork.

B. LIMESTONE

1. The topsoil shall be tested by an independent testing laboratory at the expense of the Contractor to determine the amount of limestone required. The Contractor shall spread ground limestone and incorporate it in the soil as specified by the laboratory.

- 2. Ground limestone, as specified below, shall be furnished in one hundred pound (100 lbs.) paper sacks or by power-spreader truck delivery, provided proper precaution is observed.
 - a. Minimum fineness shall be as follows:
 - 40% to pass a 100-mesh screen
 - 90% to pass a 20-mesh screen
 - -100% to pass a 10-mesh screen
- 3. Limestone may be spread with fertilizer in one operation.

C. FERTILIZER

- 1. The topsoil shall be tested by an independent testing laboratory at the expense of the Contractor to determine the amount of fertilizer required. The fertilizer shall be incorporated with the soil to a depth of two inches (2").
- 2. Commercial fertilizer shall be commercial grade granular 10-10-10 fertilizer and bear manufacturer's guaranteed statement of analysis. It shall be uniform in composition, dry and free-flowing, and shall be delivered to the site in the original, unopened container, each bearing the manufacturer's guaranteed analysis.
- 3. Any fertilizer which becomes caked or otherwise damaged, making it unsuitable for use, will not be accepted.
- 4. Contractor shall submit analysis for approval by Engineer.

D. GRASS SEED MIX

- 1. Lawn seed shall be fresh, clean, and new crop seed composed of the following varieties, mixed in the proportion stated, and meet the minimum percentages of purity and germination required by the standard seed specifications adopted by the latest edition of the Atlantic Seedman's Association.
- 2. Contractor shall furnish dealer's guaranteed statement of composition of mixture and percentages of purity and germination of each variety.
- 3. Shady Lawn Seed Mix (To be used on the north side of the existing library building):
 - Celestial Strong Creeping Red Fescue 25 parts

- Health Chewings Fescue	20 parts
- Nanook Hard Fescue	20 parts
- Manhattan 7 GLR Perennial Ryegrass	20 parts
- SR228 Kentucky Bluegrass	15 parts

Sow this mix at the rate of four pounds (4 lbs.) per one thousand square feet (1,000 sq. ft.).

- 4. Standard Lawn Seed Mix (To be used in all other areas):
 - a. Seeding done early spring (prior to May 1), late summer, or early fall shall comply with the following mixture:

- Creeping Red Fescue	35 parts
- Chewings Red Fescue	20 parts
- Kentucky 31 Tall Fescue	15 parts
- Baron Bluegrass	20 parts
- Rough Bluegrass	10 parts

Sow this mix at the rate of four pounds (4 lbs.) per one thousand square feet (1,000 sq. ft.).

b. Seeding done at any other time of year (May 1 to late summer) and all seeding of slopes shall comply with the following mixture:

- Creeping Red Fescue	35 parts
- Chewings Red Fescue	20 parts
- Kentucky 31 Tall Fescue	20 parts
- Domestic Ryegrass	25 parts

Sow this mix at a rate of six pounds (6 lbs.) per one thousand square feet (1,000 sq. ft.).

E. MULCH

1. Mulch for lawn areas shall be straw from oats, wheat, or rye and be free from noxious weeds or other objectionable material. The moisture content of all mulch materials shall not exceed fifteen percent (15%). No salt hay shall be used.

PART 3 EXECUTION

3.01 INSPECTION

- A. Verify site conditions and note irregularities affecting work of this Section.
- B. Beginning work of this Section implies Contractor's acceptance of existing conditions.

3.02 SUBSOIL PREPARATION

- A. Eliminate uneven areas and low spots. Remove debris, roots, branches, stones in excess of 1/2 inch in size.
- B. Subsoil shall conform to the specified lines and grades.
- C. Scarify subgrade to depth of 3 inches where topsoil is scheduled. Scarify in areas where equipment used for hauling and spreading topsoil has compacted subsoil.

3.03 PLACING TOPSOIL

- A. Place topsoil in areas where seeding and planting is scheduled. Place a 6" minimum depth to the finished grade elevations as shown on the drawings.
- B. Use topsoil in relatively dry state. Place during dry weather.
- C. Fine grade topsoil eliminating rough or low areas. Maintain levels, profiles and contours of subgrade.
- D. Remove stone, roots, grass, weeds, debris and foreign material while spreading.
- E. Lightly compact placed topsoil.
- F. Leave stockpile areas and site clean and raked, ready to receive landscaping or turf establishment.

3.04 TURF ESTABLISHMENT

A. FERTILIZING AND LIMING

- 1. Apply fertilizer and lime in accordance with manufacturer's instructions, the plans and these specifications.
- 2. Apply after smooth raking of topsoil and prior to roller compaction.

- 3. Do not apply fertilizer at same time or with same machine as will be used to apply seed.
- 4. Mix thoroughly into upper 2 inches of topsoil.
- 5. Lightly water to aid the dissipation of fertilizer.

B. MECHANICAL SEEDING

- 1. Apply seed only when wind velocities are less than five (5) miles per hour.
- 2. Planting Season: March 15 through June 15, and August 15 through October 15.
- 3. Apply seed in accordance with manufacturer's instructions, the plans and these specifications. Apply evenly in two intersecting directions. Rake in lightly. Do not seed in excess of that which can be mulched on same day.
- 4. Roll seeded area with roller not exceeding 150 lbs. per foot of roller width.
- 5. Apply water with a fine spray immediately after each area has been mulched. Saturate top 4 inches of soil.
- 6. Where danger of erosion exists, Contractor shall protect the seed bed with netting, loose hay mulch, or other approved material. However, caution shall be observed against matting or material which will reduce or inhibit formation of turf. At points of concentrated run-off (swales, etc.), Contractor shall lay course burlap, staked securely with bridge spikes, directly upon the seed bed. It is the Contractor's responsibility to do all the work necessary to provide an acceptable stand of grass and stable turf in all areas required by the site plan.

C. HYDROSEEDING

- 1. Mix specified seed, fertilizer and pulverized mulch in water, using equipment specifically designed for hydroseed application. Continue mixing until uniformly blended into homogeneous slurry suitable for hydraulic application.
- 2. Apply slurry uniformly to all areas to be seeded. Rate of application as required to obtain specified seed sowing rate.

D. MAINTENANCE

- 1. Begin maintenance immediately after seed placement.
- 2. Maintain mulch.
- 3. Immediately reseed areas which show bare spots or damage by compaction and reapply mulch.
- 4. All lawn areas will be established and mowed a minimum of three times prior to acceptance.
- 5. Final acceptance of "Turf Establishment" will not be made until an acceptable uniform stand of grass is obtained in all new lawn areas that is equal to or greater in quality than the undisturbed lawn.

3.05 CLEAN UP

A. Leave work area clean and neat upon completion of the work. Broom clean walks and pavements adjacent to the planting.

END OF SECTION

SECTION 02950

EXTERIOR PLANTING

1.00 GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.02 DESCRIPTION OF WORK

- A. Provide all labor, materials, necessary equipment and services to complete Work indicated on Drawings, as specified herein or both. Work includes but is not limited to:
 - 1. Furnishing and installing all plants as indicated.
 - 2. Providing and installing all accessory materials.
 - 3. Planting Beds.
 - 3. Pruning, mulching, and watering.
 - 4. Maintenance and 2-year warranty.
- B. Related work describe elsewhere:
 - 1. Section 02200 Earthwork
 - 2. Section 02930 Seeding

1.03 SUBMITTALS AND WORKMANSHIP

- A. Within 14 days of the execution of the Contract, submit a complete list of sources for all plant materials.
- B. Notify Owner prior to delivery of any materials to site, in accordance with the general conditions.
- C. The Owner reserves the right to test and reject for cause any materials not meeting material specifications by tests in accordance with methods adopted by the association of Official Agricultural Chemists.
- D. All work under this Section shall be performed by experienced workmen familiar with planting procedures and under the full time supervision of a qualified

foreman. Notify the Owner of the name and telephone number of the foreman 48 hours in advance of the first day of planting operations.

1.04 INSPECTION OF PLANTS

- A. Plants will be inspected and approval given by the Owner upon delivery for conformity to Specification requirements. Such approval shall not affect the right of inspection and rejection during the progress of the work.
- B. The Owner reserves the right to inspect and/or select all trees at the place of growth. The Owner reserves the right to approve a representative sample of each type of shrub, perennial and ground cover at the place of growth. Such sample will serve as a minimum standard for all plants of the same species used in this work. The Contractor or his representative shall be present for inspection and selection of plants.

2.00 PRODUCTS

2.01 PLANT MATERIALS

- A. Furnish and plant all plants shown on the drawings and listed thereon. All plants shall be nursery grown under climactic conditions similar to those in the locality of the project, and shall conform also to the botanical names and standards of size, culture, and quality for the highest grades and standards as adopted by the American Association of Nurserymen, Inc. in the American Standard of Nursery Stock, ANSI Z60.1- latest edition, obtainable from American Association of Nurserymen, 230 Southern Building, Washington DC 20005. All plants shall be legibly tagged with proper botanical name.
- B. Attention is called to the fact that the scientific and common names used for plants required under this contract are generally in conformity with the approved names given in the Standardized Plant Names published by the American Joint Committee on Horticultural Nomenclature. The names of varieties not included therein are generally in conformity with the names accepted in the nursery trade.
- C. All plants shall be freshly dug. No heeled-plants from cold storage shall be used. All plants shall be selected specimen quality, exceptionally heavy, symmetrical, tightly knit, so trained and favored in their development and appearance to be unquestionably and outstandingly superior in form, number of branches, compactness and symmetry, typical of their species or variety and shall have a normal habit of growth. Plants shall be sound, healthy, and vigorous, well branched and densely foliated when in leaf; shall be free of disease, insect pests, eggs of larvae; and shall have healthy, well developed root systems. All parts of the plant shall be moist and shall show active green cambium when cut.

- D. Container-grown stock including perennials and ferns shall have been grown in a container long enough for the root system to have developed sufficiently to hold its soil together, firm and whole. No plants shall be loose in the container.
- E. No substitutions of plants may be made without prior approval of the Owner, for any reason.
- F. Plants larger than those specified in the Plant List may be used if approved by the Owner but use of such plants shall not increase the contract Price. If the use of larger plants is approved, the spread of roots or ball of earth shall be increased in proportion to the size of the plant.
- G. The height of the trees, measured from the crown of the roots to the top branch, shall not be less than the minimum size designated in the Plant List. Except when a clump is designated, 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 sun-scald, frost cracks, or wounds resulting from abrasions, fire, or other causes. No pruning wounds shall be present having a diameter of more than two inches and such wounds must show vigorous bark on all edges. Evergreen trees shall be branched to within one foot of the ground.
- H. Take caliper measurements 6 inches above ground on trees 4 inches or less, all others at 12 inches above ground.
- I. Shrubs and small plants shall meet the requirements for spread and/or height stated in the Plant List. The measurements for height are to be taken from the ground level to the average height of the top of the shrub and not to the longest branch. 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, bruised or other root or branch injuries.
- J. Balled and Burlapped Plants: All plants furnished "B&B", shall be adequately balled with firm natural balls of earth of diameter and depth not less than that recommended by the American Standard for Nursery Stock. Balls shall be firmly wrapped with untreated burlap and natural rope. All plants which are 2 inches in caliper or over shall be drum-laced. All plants which are 6 inches in caliper or over shall be double burlapped. No balled plants shall be planted if the ball is cracked or broken either before or during the process of planting.

2.02 PLANTING MIXTURE

A. Topsoil for Planting Beds and Planting soil: Shall meet the requirements for Topsoil in Section 02200 – Earthwork.

B. Topsoil Additives:

- 1. Commercial Fertilizer: a complete fertilizer and shall be a standard product complying with State and United States Fertilizer Laws. Fertilizer shall be delivered to the site in the original unopened containers which shall bear the manufacturer's name and guaranteed statement of analysis. At least 50% by weight of the nitrogen content of the fertilizer shall be derived from organic materials. Fertilizer for lawn areas shall contain not less than 8% nitrogen, 16% phosphorous and 8% potash by weight of ingredients or as otherwise indicated by topsoil test results.
- 2. Ground Limestone: containing not less than 85% of total carbonates and shall be ground to such fineness that 50% will pass through a 100-mesh sieve and 90% will pass through a 20-mesh sieve. Coarser material will be accepted provided the specified rates of application are increased proportionately on the basis of quantities passing the 100-mesh sieve.
- 3. Compost: Compost shall be a well-rotted, natural material, min. 65% organic content by weight, all components passing a 1/2" screen, such as Earthlife compost as supplied by Earthlife, Falmouth, ME, (800) 933-6474, or approved equal.
- 4. Gelscape® Professional granular polymer, manufactured by Amereq, Inc., delivered in manufacturer's containers and incorporated into the planting mixture according to the manufacturer's instructions.
- C. Planting mixture for backfill in accordance with the planting details shall consist of 3 parts topsoil to 1 part compost. All amendments shall be thoroughly incorporated into the mixture to assure uniform distribution. No soil shall be used until test required have been made. Soil shall not be delivered or worked in a muddy or frozen condition.

2.03 WATERING BAG

A. Watering Bag for tree plantings shall be 30" tall x 18" wide, Treegator® Original slow release watering bag for shade trees as manufactured by Treegator.

2.04 MULCH

A. Mulch for plant beds shall be shredded hemlock bark, not exceeding one inch (1") in diameter, placed to a uniform depth of three inches (3").

2.05 LANDSCAPE STONE

- A. Crushed Angular Landscape Stone: 1-1/4", clean, washed Earthtone/Natural Crushed Stone as manufactured by DeSiato Sand & Gravel Corporation, Storrs, CT. For use on slope adjacent to cemetery.
- B. Round Landscape Stone: 2"-3", clean, washed Earthtone/Natural Round Stone as manufactured by DeSiato Sand & Gravel Corporation, Storrs, CT. For use in landscape beds around existing building.

2.06 WEED CONTROL FABRIC

A. Weed control fabric shall be woven, needle-punched polypropylene fabric for commercial grade weed control – Professional Max Weed Control Fabric by Dewitt Company or approved equal.

2.07 STEEL LANDSCAPE EDGING MATERIAL

- A. Steel landscape edging material shall be 1/8" thick, 12 gauge steel in 16' lengths DURAEDGE with Shot Blast Prep and powder coat finish by The J.D. Russell Company or approved equal. Color: Green.
- B. Edging accessories, including start and end sections, corners and steel stakes, shall be compatible with and produced by the manufacturer of the steel edging material.

2.08 WATER

A. The Contractor shall be responsible for supplying and bringing water to any and all areas requiring weathering under the scope of this contract. The Contractor shall furnish all hoses and equipment necessary for watering plant materials.

2.09 ACCESSORY MATERIALS

- A. Stakes: Stakes for supporting trees shall be of round cedar, min. 2.5" dia., capable of standing in the ground for at least two years. Stakes shall be pointed at one end. Refer to the details for sizes.
- B. Supports: Webbed polypropylene strapping.

3.00 EXECUTION

3.01 PREPARATION

- A. Selection and Tagging: Plants may be subject to inspection and approval by the Owner at their place of growth and upon delivery for conformity to specification requirements. Such approval shall not impair the right of inspection and rejection during progress of the work. The Contractor shall have inspected and "flagged" all material for the Owner's inspection, if requested.
- B. Planting Contractor shall meet with the Owner and the Owner on site to review and schedule work and areas to be planted prior to beginning any construction operations.

3.02 DIGGING, HANDLING, AND PROTECTION OF PLANTS.

- A. All balled and burlapped (B&B) plants shall be dug with firm natural balls of earth, of sufficient diameter and depth to include most of the fibrous roots and conforming to the standards of the American Nurserymen's Association. Wrap balls with untreated burlap and natural rope. No plant moved with a ball will be accepted if the ball is cracked or broken before or during planting operations.
- B. Immediately before digging, the Contractor may spray all evergreen or deciduous plant material in full leaf with anti-desiccant, applying an adequate film over trunks, branches, twigs, and/ or foliage.
- C. Plants shall be dug and prepared for shipment in a manner that will not cause damage to the branches, shape and future development of the plant safer replanting. Plan material labels shall be securely attached by wire to all plant material delivered to the planting site, for purpose of inspection and plant identification.
- D. Roots or balls of all plants shall be damp and adequately protected at all times from sun and from drying winds.

3.03 DELIVERY AND STORAGE

- A. All plants shall be covered when transported to the site. They shall not be stacked upon one another, unless racks clearing the maximum height of the plants are used. Great care shall be exercised not to break fronds or leaves during transportation or handling.
- B. Plants shall not remain unplanted for longer than 7 days after delivery. They shall be temporarily stored in a shady location and protected from the wind. They shall not be allowed to dry out at any time.

- C. Deliver materials to the site in original unopened packages, showing weight, manufacturer's name and guaranteed analysis.
- D. Store materials in such a manner that their effectiveness as approved by the Owner will not be impaired.
- E. The Owner reserves the right to reject any material which has become caked or otherwise damaged. Materials shall be uniform in composition, dry and free flowing.

3.04 PLANTING SEASON

- A. Planting season: Unless otherwise shown on the plans or directed by the Owner the planting season shall be those indicated below. No planting shall be done in frozen ground or when snow covers the ground, or the soil is otherwise in an unsatisfactory condition for planting.
 - 1. Deciduous Material: Spring: March 1st to May 15th (inclusive) except for balled and burlapped material, the planting of which will terminate on May 30th. Fall: From October 15th until the ground freezes. Certain plant items, designated elsewhere in the contract documents, shall be planted in the Spring planting season only.
 - 2. Evergreen Material: Spring: March 1st to June 1st (inclusive). Fall: August 15th to October 1st (inclusive).
 - 3. The Contractor may elect to plant outside these planting periods, but shall advise the Owner before so doing. All plants installed under such conditions shall meet all conditions of the guarantee.

3.05 INSTALLATION

- A. The Contractor shall exercise caution not to damage existing vegetation.
- B. Staking of areas to be planted: The location of each tree and shrub shall be marked by the Contractor with a stake showing the species and size of the plant material. Alternatively, plants may be placed in their approximate locations for approval by the Owner. The perimeter of beds of ground covers, perennials, and ferns shall be marked with stakes located not more than six feet apart. Color-code stakes to distinguish between deciduous trees, evergreen trees, and shrub materials. No plant pits shall be dug without the approval of the Owner. Notify Owner 48 hours in advance of required approval.
- C. Excavate plant pits in accordance with planting details.

- 1. When excavation occurs in areas of heavily compacted earth, stones, concrete chunks or other foreign matter, pits shall be dug 1/2 times wider and 1/2 times deeper than normally required.
- 2. Notify Owner of any potential drainage problems encountered during excavation of plant pits.
- 3. All excavated material shall be removed as pits are dug and stockpiled in an on-site borrow location as directed by the Owner.
- 4. In tree pits, topsoil shall be placed to the depth of six inches (6") below the balled root and to a width of one foot (1') around the ball.
- 5. Tamp soil below ball to prevent settlement, before setting plants in pit. Set plants in pits plumb and straight. Locate root flare prior to planting, and remove all soil above flare. Neatly prune any adventitious roots above root flare. Plant at relative grades as shown on details.
- 6. When balled and burlapped plants are set, planting mixture shall be lightly tamped around bases of balls to fill all voids. Remove all materials from the plant pit and root balls, including wire baskets.
- 7. After removing plants from containers, loosen soil at perimeter of root ball. Using three-pronged tool, pull out pot-bound roots prior to setting plant in pit and backfilling.
- D. Bed preparation for Annuals and Herbaceous Perennials: Remove all soil to a depth of 12". Backfill beds with a mixture consisting of equal parts topsoil, sand, and compost. The beds shall be raked smooth before planting.
- E. Backfilling: Planting mixture shall be backfilled in layers of not more than six inches and each layer lightly tamped and free of voids before next layer is put in place.
- F. Wrapping, Guying, and Staking: Wrap trees below 4" only. Inspect trees for injury for trunks, evidence of insect infestation and improper pruning before wrapping. Wrap trunks of all trees spirally from bottom to top with material specified and adequately secure. The wrapping shall overlap and entirely cover the trunk from the ground to the height of the second branch and shall meet neat and snug. Overlap shall be approximately two inches. Stake and support trees as detailed immediately after planting. Guys shall be slightly loose, to allow for natural movement of trees. Stakes shall be plumb. Stakes shall be neat in appearance.

- G. Watering bags shall be installed on shade trees at time of planting in accordance with the manufacturer's instructions. Bags shall be filled at the frequency recommended by the manufacturer for the period from planting through acceptance.
- H. Pruning and Mulching: Pruning shall only be done to remove broken or rubbing branches, sucker growth or air shoots. Pruning shall be done with clean, sharp tools. Mulch as per planting details. Herbaceous perennials and ferns shall be mulched by hand so that none of the crowns or foliage of the plants are covered by the mulch.
- I. Obstructions Below Ground: In the event that rock, underground construction work or obstructions are encountered in any plant pit excavation work under this Contract, alternate locations may be selected by the Owner, at no additional cost to the Owner. Where locations cannot be changed, the obstruction shall be removed, subject to the Owner's approval, to a depth of not less than three feet below grade and no less than six inches below bottom of roots when plant is properly set at the required grade. Rock removal will be paid as an extra in accordance with the unit price schedule.
- J. Watering: Planting shall be flooded with water twice within the first twenty-four hours at the time of planting, and not less than twice per week until provisional acceptance. Water pit a surrounding area. Contractor shall take special care to monitor the condition of the herbaceous perennial and fern plantings and water as required as to maintain optimum growing conditions.

3.06 PLANTING BEDS

- A. Steel edging shall be installed per the manufacturer's recommendations to separate planting beds from lawn areas where called for on the drawings.
- B. After all trees and shrubs are in place, a heavy layer of shredded bark mulch or landscape stone in thicknesses called for on the drawings shall be spread on top of weed control fabric in the planting areas. This material is for maintenance purposes only to reduce weed growth and cultivation.
- C. Samples of mulch and stone materials must be approved by the Owner's Representative in advance of placement.
- D. Bark mulch must be thoroughly soaked with water to eliminate drawing moisture from the soil.

3.07 MAINTENANCE

- A. Maintenance shall begin immediately after each plant is planted, and continue until Provisional Acceptance. Plants shall be watered, mulched, weeded, pruned, sprayed, fertilized, cultivated, and otherwise maintained and protected as necessary. Stakes and trees shall be straightened as required. Replace any broken or defective stakes immediately. Defective work shall be corrected as soon as possible after it becomes apparent and weather and season permit. Settled plants shall be reset to proper grade and position, planting saucer restored and dead material removed.
- B. Upon completion of planting, and prior to provisional acceptance, remove from site excess soil and debris and repair all damage resulting from planting operations.

3.08 PROVISIONAL ACCEPTANCE

- A. Provisional acceptance is the completion of all planting installation for a particular area or season, and the Owner has agreed that the installation is complete and the guarantee period may begin.
- B. The Owner will observe all work submitted for provisional acceptance upon the written request of the Contractor to the Owner received at least five days before the anticipated date of inspection. The Contractor may request inspection for provisional acceptance for a portion of the work before completion of the entire installation.
- C. After the observation, the Owner's representative will prepare a punch list of items to be corrected or replaced in order for provisional acceptance to be granted. All replacements shall be as specified in section 3.09, below. After necessary corrective work has been completed, the Owner will again observe all work and the Owner will indicate in writing to the Contractor the provisional acceptance of the planting.
- D. Unless otherwise agreed, the Owner will assume plant maintenance after Provisional Acceptance.

3.09 GUARANTEE PERIOD AND REPLACEMENTS

A. All plants shall be guaranteed by the contractor for not less than two (2) full years from time of provisional acceptance. During this time the Contractor shall inspect all plant materials to determine the adequacy of ongoing maintenance procedures. In addition, Contractor shall straighten stakes and trees as needed. Replace any broken or defective stakes immediately.

- B. All planting beds shall be guaranteed by the contractor to be weed free for not less than one (1) full year from time of provisional acceptance. During this time the Contractor shall inspect and maintain planting beds.
- C. By the end of the guarantee period at no additional cost to the Owner, the Contractor shall have replaced any trees and shrubs that are missing, not true to name or size as specified, that have died, that are, in the opinion of the Owner, unhealthy or unsightly condition, or that have lost natural shape due to dead branches, excessive pruning or poor health. In case of any question regarding the condition and satisfactory establishment of a rejected plant, the Owner may allow such a plant to remain through another complete planting season after which time the rejected, if found to be dead, in an unhealthy or badly impaired condition, shall be replaced at once.
- D. All replacement planting shall be done during the next planting season that is correct for the species of plant indicated by the Owner as unacceptable. All replacements shall be plants of the same kind and size as specified in the Plant List. They shall be furnished and planted as specified herein. The cost of replacement shall be borne by the Contractor except where it can be definitely shown that loss resulted from vandalism or theft. All areas, including seeded areas, damaged or disturbed by replacement operations shall be fully restored to their original conditions.
- E. All replacements shall be guaranteed from one year from the date of their planting.
- F. All stakes, supports, and tree trunk wrapping shall be removed and disposed of by the Contractor off site at his expense at the end of the Guarantee Period or prior to that at the discretion of the Owner.

3.10 FINAL INSPECTION AND FINAL ACCEPTANCE

- A. At the end of the Guarantee Period, the Owner will observe all work for final acceptance upon the written request of the Contractor to the Owner received at least five days before the anticipated date of inspection.
- B. After the observation, the Owner's representative will prepare a punch list of items to be corrected or replaced in order for final acceptance to be granted. All replacements shall be as specified in section 3.09, above. After necessary corrective work has been completed, the Owner will again observe all work and the Owner will indicate in writing to the contractor the final acceptance of the planting.

- C. All replacements planted as conditions of final acceptance shall be guaranteed for one year from the date of provisional acceptance of those replacements, in accordance with Section 3.09, above.
- D. Contractor shall furnish full and complete written instructions (six copies) for maintenance of the planting to the Owner at the time final acceptance.

3.11 CLEANING

A. Perform cleaning during installation of the work and upon completion of the work. Remove from site all excess materials, soils, debris, and equipment. Repair damage resulting from planting operations.

END OF SECTION

SECTION 16525

SITE LIGHTING

1.00 GENERAL

1.01 REFERENCES

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division I Specifications, apply to the work specified in this section.
- B. All electrical work shall be performed in accordance with the national electrical code, state and local codes.

1.02 **DEFINITIONS**

- A. 'Provide' to furnish, install and connect up complete and ready for safe and regular operation of particular work referred to unless, specifically otherwise noted.
- B. 'Install' to erect, mount and connect complete with related accessories.
- C. 'Work' labor, materials, equipment, apparatus, controls, accessories and other items required for proper and complete installation.
- D. 'Wiring' raceway, fittings, wire, boxes, mounting hardware and related items.
- E. 'Concealed' embedded in masonry or other construction cavity, installed in furred spaces, within double partitions or hung ceilings.
- F. 'Similar' or 'equal' equal materials, weight, size, design and efficiency of specified product.
- G. 'Contractor' the electrical contractor.
- H. 'Noted' as indicated on the drawings and/or specifications.

1.03 DESCRIPTION OF WORK

- A. The work of this Section includes providing all labor, material, equipment and service required to complete the following work, as indicated on the Drawings and as specified herein:
 - 1. Light poles and bases
 - 2. Light fixtures
 - 3. Conduit and wiring

4. Hand holes.

1.04 EXAMINATION OF CONDITIONS

- A. The Contractor shall fully inform himself of existing conditions at the site before submitting his bid, and shall be 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. No claim for extra compensation or extension of time will be allowed on account of actual condition inconsistent with those assumed, except those conditions described in the General Conditions.
- B. Circuits shown on the drawings are so indicated primarily for the purpose of indicating the general circuit plan and do not necessarily indicate the exact location of routing of the raceways unless specifically indicated. Circuits shall be run to suit conditions considering structural features, other trades, construction methods and good installation practice.

1.05 CODES, REGULATIONS AND STANDARDS

A. All electrical work shall be performed in accordance with the following approved codes:

State demolition code

State building code

State fire safety code

Local building code

Ibc - international building code

Nfpa - national fire protection code

Ansi - american national standards institute

Astm - american society for testing and materials

Osha - occupational safety and health administration

U.l. - underwriters laboratories

Nfpa 101 - life safety code

Nfpa 99 - health facilities code

Nfpa 70 - national electrical code

Nfpa 72 - national fire alarm code

Epa - environmental protection agency

Ieee - institute of electrical and electronic engineers

Nema - national electrical manufacturers association

Iecc - international energy conservation code

Icc/ansi a117.1 accessible and usable buildings and facilities

1.06 PERMITS, FEES AND INSPECTIONS

A. The contractor shall give all necessary notices, obtain all permits, pay for all government, state sales taxes and applicable fees. The contractor shall file all drawings, complete all documents and obtain all necessary approvals from the proper authority or agency having

jurisdiction. Obtain all required certificates of inspection covering work. The contractor shall see that all required inspections and tests are made and shall cooperate to make these tests as thorough and as readily made as possible.

1.07 QUALITY ASSURANCE

- A. All materials and apparatus required for the work, except as otherwise specified, shall be new and of first-class quality. It shall be furnished, delivered, erected, connected, finished in every detail and so selected and arranged as to fit properly into the building spaces. Where no specific kind or quality material is given, a first-class standard article as accepted by the engineer shall be furnished.
- B. All materials shall meet the requirements of all standards set up to govern the manufacturer of electrical materials and comply with all applicable codes and standards.
- C. All equipment and materials shall be specification grade and bear the underwriter's label. No substitute or alternate equipment, material, etc. Will be considered for this project.
- D. Thoroughly clean all electrical equipment devices and enclosures upon completion of all work. Repaint any equipment whose finish is damaged or rusted. Match manufacturer's original finish.
- E. All work shall be of a quality consistent with good trade practice and shall be installed in a neat, workmanlike manner. The engineer/owner reserves the right to reject any work which, in his opinion, has been installed in a substandard, dangerous or in an unserviceable manner. The contractor shall replace rejected work in a satisfactory manner at no extra cost to the owner.

1.08 SUBMITTALS

- A. Submit shop drawings, manufacturer's catalog cuts, specifications, and installation instructions for approval prior to ordering.
- B. The following is a list of electrical items that must be submitted for review:
 - 1. Lighting fixtures, poles and bases
 - 2. Conduit
 - 3. Wire
 - 4. Hand holes
- C. The contractor shall provide the maintenance schedule for the principal items of equipment furnished under this division.

1.09 PROTECTION

- A. Properly and completely protect against all damage, all apparatus, equipment, etc., included in this contract. The contractor will be held responsible for any damage to furnished apparatus, equipment, etc., until final acceptance.
- B. The contractor shall take whatever means necessary and/or required to protect owner's property within the working areas from dust, debris and other matter generated by the work. No work shall commence in areas where protection is required until approval has been given to the contractor by the owner.

2.00 PRODUCTS

2.01 MATERIALS

- A. Wire: Conductors shall be u.l. listed, 600 volts, 90 deg. C., single conductor type thwn/thhn. 98% conductivity, annealed uncoated copper with pvc insulation covered with nylon sheath jacket. Tested in accordance with the requirements of underwriter's laboratories standard 83. Wire shall be identified by surface marking indicating manufacturer's identification conductor size and metal, voltage rating, u.l. symbol and type designation. Conductors shall be stranded. Minimum size shall be #12 awg unless otherwise indicated. Manufactured by rome cable, triangle wire & cable, general cable or essex wire & cable.
- B. Rigid galvanized steel conduit (rgs): Rigid steel conduit shall be full weight, heavy wall steel pipe with galvanized protective coating. Manufactured by triangle wire and cable, allied tube and conduit, republic or steelduct. Conduit fittings shall be malleable iron, cadmium plated with full threaded hubs.
- C. Rigid polyvinyl chloride conduit (pvc): Rigid polyvinyl chloride conduit shall be type db, sunlight resistant, rated or use with 90 degrees c. Conductors, u.l. rated. All pvc conduit and fittings shall be solvent welded. Manufactured by carlon, electri-flex or plastiline.
 - 1. Provide schedule 40 under grass and walkway areas.
 - 2. Provide schedule 80 under parking lots and other areas subject to vehicular travel.

D. Fittings

- 1. Conduit bodies for rigid galvanized steel conduit (rgs) shall be malleable iron-zinc plated with tapered hubs and gasketed aluminum cover.
- 2. Insulation bushings shall be high impact thermoplastic phenolic with 150 deg. C. Ul temperature rating.

- 3. Insulated grounding bushings shall be malleable iron zinc plated with molded on phenolic insulation and lay-in grounding lug.
- 4. Conduit locknuts shall be heavy nut stock steel-zinc plated.
- 5. Offset nipples shall be malleable iron zinc plated with rigid conduit threading and 3/4" offset.
- 6. Conduit fittings shall be manufactured by o/z gedney, crouse-hinds or appleton.
- E. Cable ties: Cable ties shall be fabricated of one-piece hallar with no metal parts. Manufactured by burndy, t&b, panduit or blackburn.
- F. Handholes:_Underground handholes shall be polymer concrete, open bottom type, sized as required. Manufactured by quazite or approved equal. Tier rating shall be appropriate for installation location.
- G. Ground rods:_Ground rods shall be high strength steel core with electrolytic ally bonded copper jacket. Ground rods shall conform to the requirements of the u.i. spec. No. 467 (ansi c-33.8-1972). Minimum size shall be 5/8 inch diameter by eight (8') ft. Unless otherwise indicated. Length manufactured by erico, blackburn products, anixter, or gavin.
- H. Light Pole Bases: Foundations for light poles shall be Tapered Light Pole Base Model LPB-T-STD by Arrow Concrete Products or approved equal. Size as specified on Drawings. Contractor shall provide bolt pattern to manufacturer prior to fabrication.
- I. Light Poles: Light poles shall be Model CL65FGN by Brandon Industries, Fluted, Dark Green. Size as specified on Drawings.
- J. Lighting fixtures: Fixtures to be Model AGA1A-CC-TYPE V-36W-SV-50-POLE/TENON-GN-PC, Post Top fixture by Brandon Industries. Color: Dark Green. To include photocell option.
 - 1. Furnish and install all lighting fixtures as specified, complete with all accessories, louvers, lamps and mounting hardware.
 - 2. Clean and remove all paint, stickers, dirt, smudges and fingerprints from lighting fixtures after final building clean-up.
 - 3. If basis of design fixtures are not provided, contractor shall provide evidence that alternative fixtures are equal to or better than the basis of design fixtures as it relates to quality/construction, finish, color, efficiency, performance, light levels, features, accessories and other such items. Contractor shall provide photometric calculations to demonstrate equal performance.

3.00 EXECUTION

3.01 GENERAL

- A. All work, materials and manner of installing same shall be in strict accordance with the latest requirements of the national electric code.
- B. All conduit and wiring shall be installed concealed unless otherwise noted.
- C. Wiring in unfinished areas shall be installed exposed using emt or rgs conduit.

3.02 RACEWAYS

- A. Metallic raceways, enclosures and boxes shall be mechanically joined to form a continuous electrical path.
- B. The contractor shall provide approved type pull boxes as required.
- C. Minimum size conduit shall be 1" unless otherwise noted.
- D. Furnish nylon pull strings in all empty conduit runs.
- E. Furnish locknuts and bushings for all conduit terminations in all outlet boxes, panels, pull boxes, conduit stubs, etc.

3.03 RIGID GALVANIZED STEEL CONDUIT (RGS)

- A. RIGID galvanized steel conduit (rgs) shall be used for wiring in the following locations:
 - 1. Within concrete slabs
 - 2. Exposed to moisture and mechanical damage
 - 3. Exterior exposed installations
 - 4. Underground to above ground conduit sweeps

3.04 RIGID POLYVINYL CHLORIDE (PVC)

- A. Rigid polyvinyl chloride (pvc) shall be used for wiring in the following locations:
 - 1. Lighting and power branch circuit wiring buried under grade
 - 2. Below concrete slabs
 - 3. Exposed to moisture

3.05 WIRING

- A. Provide wiring to all outlets, equipment, lighting, apparatus and other specialties under this division that which furnished or provided under other divisions or by the owner.
- B. The term 'wiring' shall be considered to be comprised of the conduit, conductors, connections, etc.
- C. All wiring on drawings is sized for type thwn/thhn copper conductors.
- D. Minimum size wire shall be #12 unless otherwise indicated. All wiring shall be color coded.
- E. Exercise caution in pulling conductors into raceways so as not to damage the insulation. Cable pulling lubricant shall be used to assist in pulling.
- F. Common neutral for multiple branch circuits is not acceptable. Provide separate neutral for each branch circuit.
- G. Wiring in outlet boxes, junction boxes, cabinet panelboards or equipment shall have a minimum of eight (8") inches length leads for connecting wiring devices to make up circuit splices.
- H. Install copper green insulated grounding conductor in all conduits and raceways.

3.06 SPLICING

A. Splicing shall be done with appropriate types and current-carrying capacity. Splices shall be flame-retardant, cold resistant and waterproof.

3.07 CONDUCTOR IDENTIFICATION

- A. Conductors #8 awg and smaller shall have a color-coded insulation.
- B. Conductors #6 awg and larger shall be identified with tapes applied near the ends of the conductors.
- C. Feeders and branch circuit conductors shall be identified for phase rotation with color coding to match existing wiring in the facility.
- D. All branch circuit conductors shall be tagged at both ends with wire markers in all junction boxes, outlet boxes and device boxes.

3.08 IDENTIFICATION

- A. Use plastic-coated wire markers of the self-adhesive. Wraparound type with permanent factory-printed number, letters and symbols.
- B. Wire markers shall be securely attached at both ends, identifying panel and circuit breaker numbers.
- C. All conductors shall be permanently tagged at time of installation. Labels shall be equal to t&b, panduit or ideal.

3.09 GROUNDING

- A. All electrical work shall be grounded and bonded in full conformance with the latest approved edition of the national electrical code and local requirements.
- B. All electrical equipment, shall be made to form a continuous conducting, ground path of low impedance for ground fault circuits and operation of the circuit protective devices within each circuit.
- C. Provide grounding conductor in all raceways.
- D. Ground connections with the grounding conductors shall be made at each outlet box, lighting fixture, motor and other equipment components by means of a positively secured grounding clamp, screw or clip. Connections to grounding rods, other grounding electrode conductors shall be made with cadwell type, exothemic weld process unless otherwise noted. Connections to pipes shall be made with approved bronze or brass clamps.
- E. Bonding shall be provided to assure electrical continuity and the capacity to safely conduct any fault current likely to be imposed.

3.10 LIGHT POLES, BASES & FIXTURES

- A. Perform excavation, backfill and compaction associated with pole base installation in accordance with Section 02200 Excavation.
- B. Verify construction of light pole foundations is suitable, and provide fixtures, poles, hardware, and other accessories suitable for construction encountered.
- C. Install Lighting poles and fixtures in accordance with manufacturer's specifications and the NEC. Ground pole steel/aluminum to power system grounding conductor at each pole location, per NEC.

D. Coordinate installation of fixtures with installation of surrounding materials and landscaping (if applicable). Investigate lighting fixture locations and foundation supports to ensure that no interference exists between lighting fixtures, supports, and other equipment including that provided by other trades. Report any possible interferences to the Owner.

END OF SECTION