

PROJECT MANUAL
FOR
**EXTERIOR REPAIRS
FOR THE
EAST HARTFORD
COMMUNITY CULTURAL CENTER**

50 Chapman Place
East Hartford, Connecticut 06108

BID NO. 20-07



**AUGUST 20, 2019
ISSUED FOR CONSTRUCTION**

**TOWN OF EAST HARTFORD
DEPARTMENT OF PUBLIC WORKS, ENGINEERING DIVISION
740 MAIN STREET
EAST HARTFORD, CONNECTICUT 06108**

Prepared by:

**CAPITAL STUDIO ARCHITECTS, LLC.
1379 MAIN STREET
EAST HARTFORD, CONNECTICUT 06108**

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EAST HARTFORD COMMUNITY CULTURAL CENTER
East Hartford, Connecticut
CSA Project 19-21
Town of East Hartford Bid No. 20-07**

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SECTION 1:
BIDDING REQUIREMENTS

LEGAL AD
INVITATION TO BID

The Town of East Hartford will receive sealed bids for the Project entitled: "EXTERIOR REPAIRS FOR THE EAST HARTFORD COMMUNITY CULTURAL CENTER", East Hartford, Connecticut 06108. Bid opening date is **Wednesday, September 18, 2019 at 11:00 a.m.** at the Purchasing Department, Town Hall; 740 Main Street, East Hartford, CT 06108. All bids will be publicly opened and read aloud at that time. A non-mandatory, pre-bid conference will be held on site on **Thursday, September 5, 2019 at 10:00 a.m.** at 50 Chapman Place, East Hartford, CT 06108. Contract documents will be available for review only at the office of the Town Hall Purchasing Department starting **Wednesday, August 21, 2019** between 8:30 am to 4:30 pm, Monday thru Friday and available to download without cost on the Town of East Hartford website <http://www.easthartfordct.gov/bids> . Bidders are required to provide a 5% Bid Security and 100% Performance Bond. No bid shall be withdrawn for 60 days. Work will be substantially completed within 180 days from notice to proceed. Complete bidding requirements are noted in the Contract Documents.

Michelle Enman, Purchasing Agent
menman@easthartfordct.gov
(860) 291-7270

TOWN OF EAST HARTFORD, CONNECTICUT

INVITATION TO BID

EXTERIOR REPAIRS FOR THE EAST HARTFORD
COMMUNITY CULTURAL CENTER
50 CHAPMAN PLACE

BID NO. 20-07

Work under this contract includes EXTERIOR REPAIRS FOR THE EAST HARTFORD COMMUNITY CULTURAL CENTER in the Town of East Hartford. This building is a 2 ½ story brick structure, work is limited to the east side of the building. This work includes, but is not limited to the following: Existing Concrete Steps and Landing; including, but not limited to, removal and replacement of existing concrete steps, reinforced concrete slab with metal deck, removal and reinstallation of wall metal handrails, removal and replacement of intermediate metal handrails, removal and replacement of existing suspended exterior gypsum board ceiling beneath landing. Building East Elevation; brick cleaning, repointing and replacement, precast concrete repair and replacement, painting of new and existing metal handrails, steel beam and exterior ceiling gypsum board.

Sealed Bids will be received at the office of the Purchasing Department, Town Hall, 740 Main Street, East Hartford, CT 06108 until 11 AM, WEDNESDAY, SEPTEMBER 18, 2019 at which time and place said bids will be opened publicly and read.

The Town will conduct a NON-MANDATORY PRE-BID MEETING on THURSDAY, SEPTEMBER 5, 2019 AT 10 AM IN ROOM 11, LOWER LEVEL, COMMUNITY CULTURAL CENER, 50 CHAPMAN PLACE, EAST HARTFORD, CT.

IN ORDER TO BE CONSIDERED AN OFFICIAL PLAN HOLDER AND ELIGIBLE BIDDER FOR THE PROJECT, THE PURCHASING AGENT MUST RECEIVE AN EMAIL indicating interest in bidding, company information, and main contact information on, or before, FRIDAY, SEPTEMBER 13, 2019. All companies that send a representative to the non-mandatory pre-bid meeting will also be considered an official plan holder eligible to bid the project.

Requests for information (RFIs) will be accepted via email to the Purchasing Agent on or before FRIDAY, SEPTEMBER 13, 2019.

Drawings and Specifications will be available for review at the office of the Purchasing Agent, East Hartford Town Hall, 740 Main Street, East Hartford, CT. (Between the hours of 8:30 am to 4:30 pm, Monday through Friday) and on the Town of East Hartford's Purchasing Website:

<http://www.easthartfordct.gov/bids>

Bid security in the form of a 5% bid bond, payable to the Town of East Hartford, is required of all bidders and a 100% Performance Bond will be required of the awarded bidder. Bidders must hold bid amounts for 60 days. Work will be substantially completed within 180 days from notice to proceed.

The Town reserves the right to reject any or all bids, or any part of all bids, to waive any informality, and reserves all other rights as detailed in the Contract Documents when such action is in the best interest of the Town. The Town is an equal opportunity employer. Contractor must comply with all Federal, State and Local requirements under this contract.

All bidders are requested to note that the award of this Contract is subject to the following conditions and contingencies:

1. The approval of such governmental agencies as may be required by law.
2. The appropriation of adequate funds by the proper agencies.

Michelle Enman
Purchasing Agent
menman@easthartfordct.gov
(860) 291-7270



TOWN OF EAST HARTFORD, CONNECTICUT

STANDARD INSTRUCTIONS FOR BIDDERS

1. Sealed bid proposals will be received by the purchasing agent until the date and time indicated on the Invitation to Bid. Bids received later than the date and time specified will not be considered and will be returned unopened.
2. Bids are to be returned with the bid number prominently indicated on any other mailing envelope. The name and address of the bidder should appear in the upper left hand corner of the envelope.
Bids will not be accepted via fax or e-mail.
3. All proposals will be opened and read publicly and are subject to public inspection. Bidders may be present or represented at all openings. Bid results are mailed to all responding bidders.
4. Municipalities are exempt from any sale, excise or federal taxes. Bid prices must be exclusive of taxes and will be so construed.
5. The Town of East Hartford reserves the right to reject any or all bids or any part of all bids and to waive any informality when such action is in the best interest of the Town. The Town also reserves the right to extend by mutual consent an awarded bid when such action is in its best interest.
6. Bidders should familiarize themselves with all of the terms and conditions set forth in the bid specifications. Failure by the bidder to familiarize himself with these terms and conditions does not excuse the bidder from fulfillment of the bid specifications.
7. All entities doing business with the Town certify, upon acceptance of a bid and by virtue of their signature on that bid, that they have read, understood and will comply with the section of the Town's updated plan of affirmative action and equal opportunity relating to contractual and purchasing procedures – Section VIII Dated 01/88. The bidder agrees to cooperate fully should the Town choose to audit this compliance.
8. In case of an error in the extension or addition of prices, the unit price will govern. The Town will not be subject to any price increases after a bid award, unless it was part of the original bid terms.
9. The Town reserves the right to increase or decrease quantities listed in order to stay within the allocated funding at time of bid opening.
10. The Purchasing Department has the obligation to accept the lowest responsible bid which is in the Town's best interest. Factors include, but are not limited to: price, compliance to specifications, quality offered, freight costs, delivery time, past performance, standardization of current equipment, financial resources, technical qualifications, equipment and experience.
11. Bidders shall state in writing and attach to the bid, any conditions/exceptions that are part of the bid price. Comments to the effect "see literature" will not be acceptable.
12. Any manufacturers' names, trade names, brand names or catalog numbers used in the specifications are there for the purpose of establishing and describing general performance and quality levels. Such references are not intended to be restrictive and bids are invited on these and approved equal brands or products of any manufacturer.

TOWN OF EAST HARTFORD, CONNECTICUT

STANDARD INSTRUCTIONS FOR BIDDERS (*cont'd*)

13. The Town's competitive bidding process is not a means for competitors to obtain private/proprietary information that is not otherwise normally available. Such information relates to a bidder's financial records and responsibility, test data, manufacturing drawings, formulas and processes. To promote competition and protect valid interests this type of information/data will remain confidential.
14. All bidder questions shall be directed to the Purchasing Agent. Procedural and clarification questions will be answered appropriately. Questions that require an answer that will in effect change/alter the intent of the specifications will only be answered in writing to all bidders by a bid addendum.
15. Awarded bidders are responsible for obtaining all necessary permits as required by OSHA, Federal, State and/or Town regulations. Town permits will be issued at no cost.
16. Alternate proposals will not be considered unless specifically called for in the bid.
17. Prices shall include packing, transportation and delivery charges F.O.B. to East Hartford/delivered unless specifically noted otherwise.
18. Bidder declares that the proposal is not made in connection with any other bidder submitting a proposal for the same bid and is in all respects fair and without collusion or fraud.
19. Cash discounts may be offered by bidder for prompt payment of bills, but such cash discount will not be taken into consideration in determining the awarded low bidder except in the case of tie bids and then only provided such discount is based on payment of invoice not less than fourteen (14) days after satisfactory delivery and/or receipt of invoice, whichever is later.
20. The Town will not award a bid to any bidder who owes a delinquent tax to the Town. Bidders certify by virtue of their signature on the bid sheet that neither the bidder nor any business or corporation which the Bidder owns an interest is delinquent in tax obligations to the Town. The Purchasing Department will verify that no delinquent taxes are owed before any bid is awarded.
21. All bidders shall include a corporate resolution with your submittal. Sample formats for Corporations and Professional Corporations, Limited Liability Company and Partnerships (including Limited Partnership and Limited Liability Partnership) are attached in this packet
22. The bidding entity is required to provide evidence from the Connecticut Secretary of State that they are in good standing and qualified to conduct business in the State of Connecticut.



TOWN OF EAST HARTFORD, CONNECTICUT

INSTRUCTIONS FOR
CONSTRUCTION AND/OR LABOR SERVICE BIDS

1. A *Certificate of Insurance* naming the Town as an additional insured will be required of the awarded bidder. The insurance indemnification clause is contained with the bid specifications (see *Insurance Requirements*).
2. This is a prevailing wage bid and the wage rates are attached within the Bid Specifications. In accordance with state law, each contract for the construction, remodeling or repair of any public building or public works or improvements shall contain the following provision when the cost of construction, remodeling or repair exceeds the limits as provided in Connecticut General Statutes 31-53; “the wages paid on an hourly basis to any mechanic, laborer or workman employed upon the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such employee to any employee welfare fund, as defined in Subsection (h) of Section 31-53 for 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 of East Hartford. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such employees to any such employee welfare fund shall pay to each employee as parts of his wages the amount of payment or contribution for his classification on each pay day”.
3. This project does not need to comply with CHRO contract compliance requirements.
4. A Bid Bond must be submitted with the bid and may be in the form of certified check or cashier’s check **payable to “The Town of East Hartford” or a bond of a surety company authorized to transact business in the State of Connecticut.** No checks will be returned until the bid is awarded. If you are the awarded bidder, your check will be held until it is replaced with another Guarantee of Performance. **Bid Bond shall be 5% (five percent) of total bid price.**
5. A Guarantee of Performance will be required of the awarded bidder and may be in the form of a certified check or cashier’s check payable to “The Town of East Hartford” or a bond of a surety company authorized to transact business in the State of Connecticut. Checks will be retained by the Town for period of time after final acceptance and payment as determined by the complexity of the project. **Performance Bond shall be 100% (one hundred percent) of awarded bid price.**
6. A Guarantee of Payment will be required of the awarded bidder and may be in the form of a certified check or cashier’s check payable to “The Town of East Hartford” or a bond of a surety company authorized to transact business in the State of Connecticut. Checks will be retained by the Town for period of time after final acceptance and payment as determined by the complexity of the project. Labor and Material Bond shall be 100% (one hundred percent) of awarded bid price.
7. Before starting any work awarded bidders are responsible for obtaining permits as required by Federal, State, MDC, Utilities and/or Town regulations. Any applicable fees shall be included in the total bid price. Town of East Hartford permits will be issued at no charge.

TOWN OF EAST HARTFORD, CONNECTICUT

INSTRUCTIONS FOR CONSTRUCTION AND/OR LABOR SERVICE BIDS (*cont'd*)

8. The bidder shall abide by all OSHA, Federal, State and local laws, ordinances and regulation, which any manner affect those engaged or employed on the Work, or the materials or equipment used in the Work, or in any way affect the conduct of the Work, and no pleas of misunderstanding will be considered on account of ignorance. If bidder shall discover any provisions in the drawings, specifications or contract, which are in conflict with any such law, by-law or ordinance or regulation, he shall report it to the Town in writing with the bid proposal.
9. Throughout the work period, the contractor shall maintain the work site in a generally accepted standard of cleanliness, free from accumulation of waste materials or rubbish caused by his operations and shall take prompt action to correct any hazardous conditions reported.
10. It is the responsibility of each bidder before submitting a bid, to familiarize themselves with the specifications and conditions that may affect cost, progress, performance or completion of the project.
11. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with generally accepted industry standards.
12. Unless otherwise specified, the contractor shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, fuel, appliances, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.
13. The Contractor may utilize the services of specialty subcontractors on those parts of the Work which, under normal contracting practices, are performed by specialty subcontractors. The Contractor shall not award any work to any subcontractor without prior written approval of the Town, which approval will not be given until the Contractor submits to the Town a written statement concerning the proposed award to the subcontractor, which statement will contain such information as the Town may require. The Contractor shall be as fully responsible to the Town for the acts and omissions of his subcontractors, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of person directly employed by him. The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Contractor by the terms of the General Conditions and other contract documents insofar as applicable to the work of subcontractors and to give the Contractor the same power as regards to terminating any subcontract that the Town may exercise over the Contractor under any provision of the Contract documents. Nothing contained in this bid shall create any contractual relation between any subcontractor and the Town.
14. The Contractor shall not assign the whole or any part of this contract or any moneys due or to become without written consent of the Town, which in its sole discretion may be denied. In case the Contractor assigns all or any part of any moneys due or to become due under this contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and or any moneys due or to become due to the contractor shall be subject to prior claims of all person, firms and corporations for services rendered or materials supplied for the performance of the Work called for in this contract.

TOWN OF EAST HARTFORD, CONNECTICUT

INSTRUCTIONS FOR CONSTRUCTION AND/OR LABOR SERVICE BIDS (*cont'd*)

15. The submission of a bid offer will constitute an incontrovertible representation by the bidder that he/she has complied with every requirement of the specifications and that the bid documents are sufficient in scope and detail and convey understanding of all terms and conditions for performance of the Work.



TOWN OF EAST HARTFORD, CONNECTICUT

INDEMNIFICATION AND INSURANCE REQUIREMENTS FOR CONSTRUCTION, PROFESSIONAL OR LABOR SERVICE BIDS

NOTE: CERTIFICATE OF INSURANCE WILL ONLY BE REQUIRED OF THE AWARDED BIDDER

A. INDEMNIFICATION

THE AWARDED BIDDER WILL BE REQUIRED TO AGREE TO THE FOLLOWING INDEMNIFICATION LANGUAGE

THE AWARDED BIDDER agrees on behalf of itself and its successors and assigns, covenants and agrees at its sole cost and expense, to protect, defend, indemnify, release and hold the Town of East Hartford, its agents, servants, officials, employees, volunteers and members of its boards and commissions (Collectively the "Town of East Hartford"), harmless from and against any and all Losses (defined below) imposed upon or incurred by or asserted against the Town of East Hartford by reason of bodily injury, personal injury, death, or property damage of whatsoever kind or nature, to any individuals or parties (including, but not limited to the Town of East Hartford, the Awarded Bidder, or any other third party) arising in whole or in part, directly or indirectly, out of or in any way relating to the contract. The term "Losses" includes any losses, damages, costs, fees, expenses, claims, suits, judgments, awards, liabilities (including, but not limited to, strict liabilities), obligations, debts, fines, penalties, charges, amounts paid in settlement, foreseeable and unforeseeable consequential damages, litigation costs, attorneys' fees, expert's fees, and investigation costs, of whatever kind or nature, and whether or not incurred in connection with any judicial or administrative proceedings, actions, claims, suits, judgments or awards.

Upon written request by the Town of East Hartford, the Awarded Bidder shall defend and provide legal representation to the Town of East Hartford with respect to any of the matters referenced above. Notwithstanding the foregoing, the Town of East Hartford may, in its sole and absolute discretion, engage its own attorneys and other professionals to defend or assist it with respect to such matters and, at the option of the Town of East Hartford, its attorneys shall control the resolution of such matters. Upon demand, the Awarded Bidder shall pay or, in the sole and absolute discretion of the Town of East Hartford, reimburse, the Town of East Hartford for the payment of reasonable fees and disbursements of attorneys and other professionals in connection with this contract.

**THE TOWN OF EAST HARTFORD WILL NOT AGREE TO INDEMNIFY THE AWARDED BIDDER;
SUBCONTRACTOR(S); OR INDEPENDENT CONTRACTOR**

B. INSURANCE

1. GENERAL REQUIREMENTS

The AWARDED BIDDER shall be responsible for maintaining insurance coverage in force for the life of this contract of the kinds and adequate amounts to secure all of the AWARDED BIDDERS's obligations under this contract with an insurance company(ies) with an AM Best Rating of A-VII or better licensed to write such insurance in the State of Connecticut and acceptable to the Town of East Hartford.

Additional Insured: The Town of East Hartford, its officials, employees, volunteers, boards and commissions must be included as an Additional Insured on the AWARDED BIDDER'S Insurance Policies (except Workers' Compensation and Professional Errors & Omissions). Evidence of this must be provided upon inception of this contract and upon renewal of insurance by the AWARDED BIDDER to the Town of East Hartford in the form of language on a Certificate of Insurance as well as a policy endorsement.

TOWN OF EAST HARTFORD, CONNECTICUT

INDEMNIFICATION AND INSURANCE REQUIREMENTS FOR
CONSTRUCTION, PROFESSIONAL OR LABOR SERVICE BIDS*(cont'd)*

The AWARDED BIDDER shall provide the Town of East Hartford with a Certificate(s) of Insurance signed by an authorized representative of the insurance company(ies) prior to the performance of this contract describing the coverage and providing that the insurer shall give the Town of East Hartford written notice at least thirty (30) days in advance of any termination, expiration, or any and all changes in coverage. Such insurance or renewals or replacements thereof shall remain in force during the AWARDED BIDDER'S responsibility under this contract. Failure to provide or maintain any of the insurance coverage required herein shall constitute a breach of the Contract.

2. SPECIFIC REQUIREMENTS:a) Commercial General Liability Insurance

The AWARDED BIDDER shall carry Commercial General Liability Insurance (broad form coverage) insuring against claims for bodily injury, property damage, personal injury and advertising injury that shall be no less comprehensive and no more restrictive than the coverage provided by Insurance Services Office (ISO) form for Commercial General (CG 0001 04/2013). By its terms or appropriate endorsements such insurance shall include the following coverage, to wit: Bodily Injury, Property Damage, Fire Legal Liability (not less than the replacement value of the portion of the premises occupied), Personal & Advertising Injury, Blanket Contractual, Independent Contractor's, Premises Operations, Products and Completed Operations (for a minimum of two (2) years following Final Completion of the Project). Any deviations from the standard unendorsed form will be noted on the Certificate of Insurance.

Type of Coverage:	Occurrence Basis
Minimum Amount of Coverage:	\$1,000,000 per occurrence \$2,000,000 aggregate
Policy Period:	Annual Policy

b) Workers' Compensation and Employer's Liability Insurance

The AWARDED BIDDER shall provide Statutory Workers' Compensation Insurance as required by the State of Connecticut, including Employer's Liability.

Amount of Coverage: Coverage A:	Statutory
Coverage B (Employer Liability):	\$500,000 Each Accident \$500,000 Disease, Policy Limit \$500,000 Disease, Each Employee

c) Commercial Automobile Liability Insurance

The AWARDED BIDDER shall carry Commercial Automobile Liability Insurance insuring against claims for bodily injury and property damage and covering the ownership, maintenance or use of any auto or all owned/leased and non-owned and hired vehicles used in the performance of the Work, both on and off the Project Site, including loading and unloading. The coverage should be provided by Insurance Services Office form for

TOWN OF EAST HARTFORD, CONNECTICUT

INDEMNIFICATION AND INSURANCE REQUIREMENTS FOR
CONSTRUCTION, PROFESSIONAL OR LABOR SERVICE BIDS*(cont'd)*

Commercial Auto Coverage (CA CA0001 10/2013) or equivalent. "Auto" (symbol 1 or equivalent) is required. Any deviations from the standard unendorsed form will be noted on the Certificate of Insurance.

Type of Coverage:	Occurrence Basis
Minimum Amount of Coverage:	\$1,000,000 combined single limit
Policy Period:	Annual Policy

d) Umbrella Liability Insurance

The AWARDED BIDDER shall carry an umbrella liability insurance policy for **\$2,000,000**. The necessity and amount of umbrella liability insurance is dependent upon a number of factors including, scope, price and duration of the work to be performed. The Town of East Hartford will inform the AWARDED BIDDER as to the necessity and limits for this insurance as soon as practicable, and has sole discretion of the limits to be required.

3. PROFESSIONAL SERVICE CONTRACTOR REQUIREMENTS

(e.g., Architects; Engineers, et al.)

The AWARDED BIDDER shall carry Errors & Omissions coverage in the **minimum** amount \$1,000,000 per claim/\$1,000,000 annual aggregate for all professional services contracts. If the insurance coverage is written on a Claims-Made basis, an extended reporting period of at least 3 years after substantial completion of the project is required. Increased coverage limits may be required based on the scope, price and duration of the work to be performed. The Town of East Hartford will inform the AWARDED BIDDER as to the required limits for this insurance as soon as practicable, and has sole discretion of the limits to be required.

4. SUBCONTRACTOR REQUIREMENTS:

The AWARDED BIDDER shall require all subcontractors and independent contractors to carry the coverages set forth in section B. INSURANCE and will obtain appropriate Certificates of Insurance before the subcontractors and independent contractors are permitted to begin work.

The AWARDED BIDDER shall require that The Town of East Hartford, its officials, employees, volunteers, boards and commissions be included as an Additional Insured on all subcontractors and independent contractors insurance (except Workers' Compensation and Professional Errors & Omissions) before permitted to begin work.

The AWARDED BIDDER and all subcontractors and independent contractors and their insurers shall waive all rights of subrogation against the Town of East Hartford, and its officers, agents, servants and employees for losses arising from work performed by each on this contract.

**THE TOWN RESERVES THE RIGHT TO AMEND THE AMOUNTS OF
COVERAGE REQUIRED AND TYPE OF COVERAGE PROVIDED BASED ON
THE FINAL AGREED UPON SCOPE OF SERVICES**

SECTION 2: **BID FORMS**

All of the following documents contained within this section must be completed by the prospective bidder and returned with the bid:

- Bid Bond (To be supplied by the Bidder)
- Form of General Bid
- Bid Proposal Sheets
- Resolution for Corporations/Professional Corporations
- Resolution for Limited Liability Companies
- Resolution for Partnerships
- Qualifications of Bidder Form
- Evidence from the CTSOS of Good Standing & Ability to Conduct Business in Connecticut

Note that the correct resolution must be prepared based on the type of business submitting the bid (corporation, professional corporation, limited liability company, partnership, limited liability partnership, or general partnership). Resolutions must be on company letterhead and the date of the resolution must match the bid opening date.

FORM OF GENERAL BID

BID No. 20-07

**EXTERIOR REPAIRS FOR THE
EAST HARTFORD COMMUNITY CULTURAL CENTER**

East Hartford, Connecticut 06108

Bidding Contractor: _____

Town of East Hartford
Purchasing Department
740 Main Street
East Hartford, CT 06108

Attn. Michelle Enman - Purchasing Agent

1. Having carefully examined the Invitation to Bid, Instructions for Construction and/or Labor Service bids, Insurance Requirements, Form of General Bid, General Conditions, Supplemental Conditions, Technical Specifications, Appendices, Contract Drawings and Exhibits for the furnishing of all materials, equipment, tools, labor and incidentals necessary to complete the Work "EXTERIOR REPAIRS FOR THE EAST HARTFORD COMMUNITY CULTURAL CENTER", as well as having carefully examined the site and having satisfied himself as to conditions affecting the proposed Work and all Addenda issued by the Town, transmitted to the undersigned by electronic mail prior to the date of opening of Bids, the undersigned proposes to complete all Work on the Contract Drawings and as described in the Bid Specification, for the lump sum and unit prices shown below.

2. **BASE-BID SUBTOTAL:** Base bid subtotal lump sum includes all work indicated on drawings and project manual:

\$ _____ Dollars, (\$ _____).

<ADD> Unit Price No.1 Lump Sum (see item #6): Dollars, (\$ _____).

<ADD> Unit Price No.2 Lump Sum (see item #6): Dollars, (\$ _____).

=====

BASE-BID TOTAL: Base bid total lump sum includes base bid subtotal and unit price amounts.

\$ _____ Dollars, (\$ _____).

3. In submitting this bid, it is understood that the right is reserved by the Authority to reject any and all bids. If written notice of acceptance of this bid is mailed, telegraphed or delivered to the undersigned within sixty (60) days after the opening thereof, or at any time thereafter before this bid is withdrawn, the undersigned agrees to execute and deliver a contract in the prescribed form and furnish the required performance bond within ten (10) days after the Contract is presented to him for signature.

4. Based on the Base-Bid Total above a Security in the sum of \$ _____ Dollars in the form of a bid bond is submitted herewith in accordance with the specifications.

5. **ALTERNATES:**

Bid amounts for each Alternate are to include costs of related coordination, modification or adjustment. All items will be a Deduct Amount from the Base Bid.

■ **ALTERNATE No. 1 – INSTALL PRECAST TYPE “A1” instead of PRECAST TYPE “A”.**

\$ _____ Dollars (\$ _____).

■ **ALTERNATE No. 2 – INSTALL COPPER instead of PRECAST CONCRETE at TURRETS.**

\$ _____ Dollars, (\$ _____).

■ **ALTERNATE No. 3 – DELETE ALL WORK EXCEPT STAIR.**

\$ _____ Dollars, (\$ _____).

6. **UNIT PRICES:**

Each Unit Price shall include all equipment, labor, permits, fees, overhead and profit, etc. incidental to completion of the work involved and the disposal of surplus or unsuitable material in accordance with the Plans and Specifications or as directed by the Owner.

Unit price amounts are in addition to those required per base bid.

The bidder is to carry a fixed lump sum cost per item in the bid submittal for the quantities shown. This amount will be added to the Base Bid Subtotal and be awarded to the successful bidder, if the owner chooses to proceed with that particular unit cost item. Should the quantity for any particular unit cost be less than the fixed lump sum quantity for that item, the final contract amount will be reduced to reflect that.

■ **UNIT PRICE No. 1 – Spalled Brick Replacement (100 additional bricks):**

■ **UNIT PRICE No. 2 – Brick Repointing (250 sq. ft. additional):**

- 7. All required forms must be filled out completely. The Authority may consider as non-responsive any bid that is incomplete or not submitted in the prescribed format.
- 8. The Town of East Hartford (“Town”) reserves the right to reject any or all bids, or any part of all bids, to waive any informality, and reserves all other rights as detailed in the Contract Documents when such action is in the best interest of the Town. The Town is an equal opportunity employer. Contractor must comply with all Federal, State and Local requirements under this contract.

9. Certification of Non-segregated Facilities. By signing this bid, the bidder certifies that he does not maintain or to provide for his employees, any segregated facilities at any of his establishments, at any location, under his control, where segregated facilities are maintained. He further certifies that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. He certifies further that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The bidder agrees that a breach of this certification is a violation of the Equal Opportunity clause in this contract. As used in this certification, the term "segregated facilities" means any waiting room work areas, rest rooms and wash rooms. restaurants and other eating areas, time clocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis or race, color, religion or national origin, because of habit, local custom or otherwise. He further agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000.00 which are not exempt from the provisions of the Equal Opportunity clause, that he will forward a notice to his proposed subcontractors as provided in the Instruction to Bidders.

10. ADDENDUM RECEIPT:

The receipt of the Addendum to Drawings and Specifications is hereby acknowledged.

Addendum No. _____ Dated _____
 Addendum No. _____ Dated _____
 Addendum No. _____ Dated _____
 Addendum No. _____ Dated _____
 Addendum No. _____ Dated _____

11. BIDDER ACKNOWLEDGEMENTS

- A. The undersigned understands that there may be changes, omissions, or modification in the Work, and that appropriate adjustments will be made to the Contract price in accordance with the Contract Documents. The undersigned understands that the Owner reserves the right to accept or reject any or all bids, and to waive all formalities, any irregularities, and accept the Bid deemed to be in the Owner's best interest.
- B. Bid prices shall not include any sales, excise or other taxes for which the Owner is not liable. Town of East Hartford is the awarding authority.
- C. The Bidder agrees to hold the above pricing for sixty (60) days.
- D. The Bidder hereby agrees to commence Work under this Contract within ten (10) days of written Notice to Proceed from the Town, and to complete the Work of all base bid items within ONE HUNDRED EIGHTY (180) CALENDAR DAYS thereafter. The Bidder further agrees to pay as liquidated damages, the sum of FIVE HUNDRED DOLLARS (\$500.00) for each consecutive calendar day beyond the date of completion. Liquidated damages are not intended as a penalty but rather shall be construed as a best estimate of damages which the Town will suffer due to Bidder's refusal, failure or neglect to perform pursuant to his Bid and Contract Documents.
- E. The Bid security in the sum of: 5% OF TOTAL BID is to become the property of the Town in the event the above forms are not executed within the time set forth above, as liquidated damages, and not as a penalty for the delay and additional expense to the Town caused thereby.

12. BID FORM SIGNATURES

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

Date: _____

Bidding Company: _____

Business Address:

Signature: _____
Name: _____
Title: _____

Business Phone: _____

Business Fax: _____

Email Address: _____

END OF BID FORM

NEW RESOLUTION FOR CORPORATIONS/PROFESSIONAL CORPORATIONS

(TO BE TYPED ON CORPORATION LETTERHEAD)

I (name of Corporation's Secretary), Secretary of (legal name of Corporation) a Corporation duly organized and operating under the laws of (State) and qualified and authorized to do business in the State of Connecticut, DO HEREBY CERTIFY that the following is a true, correct and accurate copy of a Resolution duly adopted at a meeting of the Board of Directors of such Corporation, duly convened and held on (Date of Meeting), at which meeting a duly constituted quorum of the Board of Directors was present and voted in favor of such Resolution.

RESOLVED: That the following Officers of this Corporation, or any one of them individually:

(Name and title of Officer or Officers)

are empowered to execute and deliver, in the name of and on behalf of this Corporation, contracts, bids and other documents to the Town of East Hartford, State of Connecticut, and are further authorized to affix the Corporate Seal to such documents and to bind the Corporation to such contracts, bids and other documents.

I further CERTIFY that such Resolution has not been modified, rescinded or revoked since the date on which it was enacted, and it is at present in full force and effect.

IN WITNESS WHEREFORE, the undersigned has affixed his/her signature and the Corporate Seal of the Corporation, this (date) day of (month) 20__

(Typed name of Corporation's Secretary)

SIGNATURE OF SECRETARY

(Corporate Seal)

PRIOR RESOLUTION FOR CORPORATIONS/PROFESSIONAL CORPORATIONS

(TO BE TYPED ON CORPORATION LETTERHEAD)

I (name of Corporation's Secretary), Secretary of (legal name of Corporation) a Corporation duly organized and operating under the laws of (State) and qualified and authorized to do business in the State of Connecticut, DO HEREBY CERTIFY that the following is a true, correct and accurate copy of a Resolution duly adopted at a meeting of the Board of Directors of such Corporation, duly convened and held on (Date of Meeting), at which meeting a duly constituted quorum of the Board of Directors was present and voted in favor of such Resolution.

RESOLVED: That the following Officers of this Corporation, or any one of them individually:

(Name and title of Officer or Officers)

are empowered to (recite resolution authorizing submission of bid or execution of contract).

I further CERTIFY that such Resolution has not been modified, rescinded or revoked since the date on which it was enacted, and it is at present in full force and effect.

IN WITNESS WHEREFORE, the undersigned has affixed his/her signature and the Corporate Seal of the Corporation, this (date) day of (month) 20__

(Typed name of Corporation's Secretary)

(Corporate Seal)

SIGNATURE OF SECRETARY

RESOLUTION FOR LIMITED LIABILITY COMPANIES

(TO BE TYPED ON COMPANY LETTERHEAD)

The undersigned, comprising all Members of (legal name of LLC), a Limited Liability Company duly organized and operating under the laws of (State) and qualified and authorized to do business in the State of Connecticut, DO HEREBY CERTIFY that the following is a true, correct and accurate copy of a Resolution duly adopted at a meeting of the Members, duly convened and held on (Date of Meeting), at which meeting a duly constituted quorum of the voting Members was present and voted in favor of such Resolution. We further CERTIFY that such Resolution has not been modified, rescinded or revoked since the date on which it was enacted, and it is at present in full force and effect:

RESOLVED: That the following Members of this Limited Liability Company, or any one of them:

(Name and title of Members)

are empowered to execute and deliver, in the name of and on behalf of this Limited Liability Company, contracts, bids and other documents to the Town of East Hartford, State of Connecticut, and are further authorized to bind the Limited Liability Company to such contracts, bids and other documents.

IN WITNESS WHEREFORE, the undersigned have executed this resolution, this (date) day of (month) 20__

(Typed Member Name)

(Typed Member Name)

(Typed Member Name)

(Typed Member Name)

RESOLUTION FOR LIMITED LIABILITY COMPANIES BY MANAGING PARTNER

(TO BE TYPED ON COMPANY LETTERHEAD)

I (name of Managing Member), Managing Member of (legal name of LLC), a Limited Liability Company duly organized and operating under the laws of (State) and qualified and authorized to do business in the State of Connecticut, DO HEREBY CERTIFY that the following is a true, correct and accurate copy of a Resolution duly adopted at a meeting of the Members, duly convened and held on (Date of Meeting), at which meeting a duly constituted quorum of the voting Members was present and voted in favor of such Resolution. I further CERTIFY that such Resolution has not been modified, rescinded or revoked since the date on which it was enacted, and it is at present in full force and effect:

RESOLVED: That the following Members of this Limited Liability Company, or any one of them:

(Name and title of Members)

are empowered to execute and deliver, in the name of and on behalf of this Limited Liability Company, contracts, bids and other documents to the Town of East Hartford, State of Connecticut, and are further authorized to bind the Limited Liability Company to such contracts, bids and other documents.

IN WITNESS WHEREFORE, the undersigned has affixed his/her signature, this (date) day of (month) 20__

(Typed name of Managing Partner)

SIGNATURE OF MANAGING PARTNER

RESOLUTION FOR PARTNERSHIPS

(TO BE TYPED ON COMPANY LETTERHEAD)

The undersigned, comprising all (partners/general partners) of (legal name of partnership), a (partnership/Limited Partnership/Limited Liability Partnership) duly organized and operating under the laws of (State) and qualified and authorized to do business in the State of Connecticut, DO HEREBY CERTIFY that the following is a true, correct and accurate copy of a Resolution duly adopted at a meeting of the voting (partners/general partners), duly convened and held on (Date of Meeting), at which meeting a duly constituted quorum of the voting partners was present and voted in favor of such Resolution. We further CERTIFY that such Resolution has not been modified, rescinded or revoked since the date on which it was enacted, and it is at present in full force and effect:

RESOLVED: That the following (partners/general partners) of this Limited Liability Company, or any one of them:

(Name and title of partners/general partners)

are empowered to execute and deliver, in the name of and on behalf of this (partnership/Limited Partnership/Limited Liability Partnership), contracts, bids and other documents to the Town of East Hartford, State of Connecticut, and are further authorized to bind the (partnership/Limited Partnership/Limited Liability Partnership) to such contracts, bids and other documents.

IN WITNESS WHEREFORE, the undersigned have executed this resolution, this (date) day of (month) 20__

(Typed partner/general partner Name)

(Typed partner/general partner Name)

(Typed partner/general partner Name)

(Typed partner/general partner Name)

BID BOND

KNOW ALL MEN BY THESE PRESENTS. That we the undersigned,

_____ as Principal,
(Name of Principal)

_____ as Surety,
(Name of Surety)

are held and firmly bound unto the Town of East Hartford, CT, hereinafter called the "TOWN", in the penal sum of \$ _____ Dollars lawful money of the United States, for the payment of which sum well and truly made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severely, firmly by these present.

THE CONDITION OF THIS OBLIGATION IS SUCH, THAT whereas the Principal has submitted the accompanying bid,
Dated: _____.

For: **Exterior Repairs for the East Hartford Community Cultural Center, East Hartford, CT. 06108**

NOW THEREFORE, if the Principal shall not withdraw said bid within **sixty (60) days** after the said opening and shall within ten (10) days after the prescribed forms are presented to him for signature, enter into a written contract with the "TOWN" in accordance with the bid as accepted, and give bond with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such contract; or in the event of the withdrawal of said bid within the period specified, or the failure to enter into such contract and give such bond within the time specified, if the Principal shall pay the "TOWN" the difference between the amount specified in said bid and the amount for which the "TOWN" may procure the required work or supplies or both, if the latter amount be in excess of the former, then the above obligation shall be void and no effect, otherwise to remain in full force and virtue.

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

IN PRESENCE OF:

_____ (Seal)
(Individual Principal)

_____ *(Business Address)*

_____ (Seal)
(Individual Principal)

_____ *(Business Address)*

BID BOND (cont'd)

ATTEST:

(Corporate Principal)

(Business Address)

By _____ Affix
Corporate
Seal

ATTEST:

(Corporate Surety)

(Business Address)

By _____ Affix
Corporate
Seal

Power of Attorney for person signing for surety must be attached to bond.

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____ Certify that I am the _____ Secretary of the corporation named as principal in the within bond; that _____ who signed the said bond on behalf of the Principal was then _____ of said corporation; that I know his signature, and his signature therefore is genuine; and that said bond was duly signed, sealed, and attested, to for and in behalf of said corporation by authority of its governing body.

_____ (Corporate Seal)

QUALIFICATIONS OF BIDDER

The undersigned offers the following information as evidence of his qualifications to perform the Work as bid upon according to all the requirements of the Contract Documents, including Plans and Specifications. ***PLEASE PRINT OR TYPE THE FOLLOWING INFORMATION:***

Project Name	EXTERIOR REPAIRS FOR THE EAST HARTFORD COMMUNITY CULTURAL CENTER
Bidder's Name	_____
Bidder's Address	_____
When Organized	_____

1. How many years has Bidder been engaged in the contracting business under present firm name?

- 1a. Former firm names (if applicable). List previous names.

2. The names and addresses of all persons interested in the bid (if made by a partnership or corporation) as Principals, are as follows (attach supplementary list if necessary):

3. The Bidder is requested to state in Table 1 (see following page) a minimum of three (3) projects of similar nature to the project described herein, that the Bidder has completed, with name, address, and telephone number of a reference for each project.

TABLE 1

PROJECT 1. Title 2. Description (i.e. square feet of sidewalk)	SPECIALTY WORK	PROJECT DURATION		PROJECT COST (BID)	PROJECT COST (FINAL)	NAME, ADDRESS & TELEPHONE NO. 1. Owner 2. Project Engineer/Architect 3. Project Reference
		FROM	To			

4. List projects presently under contract by the Bidder, dollar value of the contract, percent and estimated time of completion:

5. Has the Bidder ever failed to complete work awarded; and if so, state where and why:

6. If the Bidder has worked under the direction of a Consulting Engineer, list recent projects with name, address and telephone number of the Consultant:

7. Does the Bidder plan to sublet any part of this work; and if so, give details: including name, address, phone number, contact person and list of references for each subcontractor.

8. List equipment the Bidder owns that is available for this project:

9. List equipment the Bidder plans to rent or purchase for this project:

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

Surety: _____

Bank: _____

Major Material Supplier: _____

11. List Key Personnel to be employed for this project: _____

12. Remarks: _____

Respectfully Submitted:

By: _____

The above statement must be subscribed and sworn to before a Notary Public.

By _____ Date _____

State of _____)
County of _____) ss _____, A.D. 2019

Personally appeared before me _____ who subscribed to and made oath to the truth of the foregoing statement.

Notary Public

SECTION 3:
CONTRACT AWARD FORMS

The Town will make an initial determination of the Lowest Responsible Bidder based on the Town's best interest. That bidder must then complete and return the following documents within ten (10) calendar days in order to be considered for a formal bid award:

- Certificate of Insurance (*provided by Contractor*)
- Anticipated Source of Materials Form
- List of Proposed Subcontractors

TOWN OF EAST HARTFORD PUBLIC WORKS DEPARTMENT

PROPOSED LIST OF SUBCONTRACTORS

PROJECT: EXTERIOR REPAIRS FOR THE
EAST HARTFORD COMMUNITY CULTURAL CENTER
Bid No. 20-07

(Bidder) _____

Dated _____ **and which is an integral part of the Bid Form.**

In accordance with the bid documents, we hereby submit a completed List of Subcontractors. The Town of East Hartford reserves the right to reject a proposed Subcontractor for reasonable cause.

The following work will be performed and/or provided by Subcontractors and coordinated by us (General Contractor). This list comprises all of the subcontractors to be used on this project. Where the work item will be performed by us, it will be so indicated.

Division 3 – Concrete:

Subcontractor: _____

Address: _____

Division 3 – Concrete Testing:

Subcontractor: _____

Address: _____

Division 4 – Masonry:

Subcontractor _____

Address: _____

Division 4 – Cast Stone:

Subcontractor _____

Address: _____

Division 5 – Pipe and Tube Railings:

Subcontractor _____

Address: _____

Division 9 – Water Repellents:

Subcontractor: _____

Address: _____

Division 9 – Painting:

Subcontractor: _____

Address: _____

TOWN OF EAST HARTFORD PUBLIC WORKS DEPARTMENT

ANTICIPATED SOURCE OF MATERIALS

PROJECT: EXTERIOR REPAIRS FOR THE
 EAST HARTFORD COMMUNITY CULTURAL CENTER
 Bid No. 20-07

BIDDER: _____

Submittals are required for the following materials or items:

MATERIAL OR ITEM	ANTICIPATED SOURCE
03012 - Precast Concrete Repair	
03250 - Waterstop System	
03300 - Concrete	
04500 - Brick	
04500 - Brick Cleaner	
04500 - Cast Stone Cleaner	
04500 - Crack Repair	
04720 - Cast Stone	
04720 - Water Resistant Admixture	
05521 - Pipe and Metal Railings	
07190 - Water Repellents	
07621 - Copper Flashing	

SECTION 4: **AGREEMENT FORMS**

Upon receipt of notice of contract award, and receipt of the compiled project Agreement, all of the following documents contained within this section must be completed by the awarded bidder and returned within ten (10) calendar days. Note that a new resolution, with date matching the effective date of the Agreement, must be submitted.

- Fully Endorsed Agreement (*3 originals*)
- Resolution for Corporations/Professional Corporations
- Resolution for Limited Liability Companies
- Resolution for Partnerships
- Performance Bond
- Labor and Materials Bond
- Forms for Department of Public Works License/Permit
 - Certificate of Insurance
 - Hold Harmless Agreement
- Contractor's Wage Certification Form

Note that the correct resolution must be prepared based on the type of business contracting with the Town (corporation, professional corporation, limited liability company, partnership, limited liability partnership, or general partnership). Resolutions must be on company letterhead and the date of the resolution must match the Effective Date of the Agreement.

The *Contractor's Wage Certification Form*, which can be found in the wage rate attachments in an appendix, must be submitted directly to the Connecticut Department of Labor. A copy of the form, as submitted to the CTDOL, must be provided to the Town with the Agreement Forms.



AGREEMENT

EXTERIOR REPAIRS FOR THE EAST HARTFORD COMMUNITY CULTURAL CENTER

BID No. 20-07

THIS AGREEMENT is by and between the Town of East Hartford, Connecticut, a municipal corporation with principal office and place of business at 740 Main Street, East Hartford, Connecticut 06108, acting herein through the Town's Mayor, (*hereinafter referred to as Owner*) and _____ with an office and place of business at _____ a corporation/partnership/LLC/LLP/sole proprietorship (*hereinafter referred to as Contractor*) for the construction of the project titled:
EXTERIOR REPAIRS FOR THE EAST HARTFORD COMMUNITY CULTURAL CENTER.

ARTICLE 1 – WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents.

ARTICLE 2 – THE PROJECT

- 2.01 *The Project, of which the Work under the Contract Documents is a part, is generally described as follows: EXTERIOR REPAIRS FOR THE EAST HARTFORD COMMUNITY CULTURAL CENTER.*
- 2.02 *This building is a 2 ½ story brick structure, work is limited to the east side of the building. This work includes, but is not limited to the following: Existing Concrete Steps and Landing; including, but not limited to, removal and replacement of existing concrete steps, reinforced concrete slab with metal deck, removal and reinstallation of wall metal handrails, removal and replacement of intermediate metal handrails, removal and replacement of existing suspended exterior gypsum board ceiling beneath landing. Building East Elevation; brick cleaning, repointing and replacement, precast concrete repair and replacement, painting of new and existing metal handrails, steel beam and exterior ceiling gypsum board.*

ARTICLE 3 – ENGINEER

- 3.01 The Project was designed by CAPITAL STUDIO ARCHITECTS, LLC, East Hartford, CT 06108
- 3.02 The Owner retained CAPITAL STUDIO ARCHITECTS ("Architect") 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.

AGREEMENT

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 *Contract Times: Days*

- A. The Work will be substantially completed within 180 days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within 30 days after the date when the Contract Times commence to run.

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 and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. 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):
1. Substantial Completion: Contractor shall pay Owner \$500 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
 2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$500 for each day that expires after such time until the Work is completed and ready for final payment.
 3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

4.04 *Special Damages*

- A. In addition to the amount provided for liquidated damages, Contractor shall reimburse Owner for any fines or penalties imposed on Owner as a direct result of the Contractor's failure to attain Substantial Completion according to the Contract Times.

ARTICLE 5 – CONTRACT PRICE

- 5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

AGREEMENT

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, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in 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 elsewhere in the Contract.
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 Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract
 - a. 95 percent (95%) of Work completed (with the balance being retainage).
 - b. There will be no payment for the cost of materials and equipment not incorporated in the Work.
- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 99 percent (99%) of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions.

6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

ARTICLE 7 – INTEREST

- 7.01 All amounts not paid when due shall bear interest at the rate of eight percent (8%) per annum.

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

- 8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:
- A. Contractor examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
 - B. Contractor visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, 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 Laws and Regulations that may affect cost, progress, and performance of the Work.
 - D. Contractor carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if

any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

- E. Contractor considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.
- F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no 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.
- 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 given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
- 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. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 *Contents*

- A. The Contract Documents are inclusive of the following:
 - 1. This Agreement.
 - 2. Corporate Resolution.
 - 3. Performance Bond.
 - 4. Labor and Material Bond.
 - 5. General Conditions.
 - 6. Supplemental General Conditions.
 - 7. Technical Specifications as listed in the table of contents of the Bid Specification.
 - 8. Drawings (not attached), as produced by Capital Studio Architects, LLC.
 - 9. Addenda.
 - 10. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid.
 - b. Committee of Award Documentation.

- c. Contractor's Letter of Award.
 - d. Contract Award Forms.
11. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
- a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.
 - d. Field Orders.
- B. The documents listed in Paragraph 9.01.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 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 *Terms*

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, 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, money that may become due and money that is 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.

10.03 *Successors and Assigns*

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

10.04 *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.

10.05 *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 10.05:
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.

10.06 *Other Provisions*

- A. Owner stipulates that if the General Conditions that are made a part of this Contract are based on EJCDC® C-700, Standard General Conditions for the Construction Contract, published by the Engineers Joint Contract Documents Committee®, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or "track changes" (redline/strikeout), or in the Supplementary Conditions.

IN WITNESS WHEREOF, the said parties hereto have caused this instrument to be signed in duplicate by their respective duly constituted officers, attested, and sealed pursuant to proper resolutions. One counterpart each has been delivered to Owner and Contractor.

This Agreement will be effective on the date of _____ (*which is the Effective Date of the Agreement*).

Signed and sealed in the presence of:

OWNER: TOWN OF EAST HARTFORD, CONNECTICUT

Witness

By Marcia A. Leclerc
Mayor

Witness

CONTRACTOR:

Witness

By

Witness

Printed Name and Title

NEW RESOLUTION FOR CORPORATIONS/PROFESSIONAL CORPORATIONS

(TO BE TYPED ON CORPORATION LETTERHEAD)

I (name of Corporation's Secretary), Secretary of (legal name of Corporation) a Corporation duly organized and operating under the laws of (State) and qualified and authorized to do business in the State of Connecticut, DO HEREBY CERTIFY that the following is a true, correct and accurate copy of a Resolution duly adopted at a meeting of the Board of Directors of such Corporation, duly convened and held on (Date of Meeting), at which meeting a duly constituted quorum of the Board of Directors was present and voted in favor of such Resolution.

RESOLVED: That the following Officers of this Corporation, or any one of them individually:

(Name and title of Officer or Officers)

are empowered to execute and deliver, in the name of and on behalf of this Corporation, contracts, bids and other documents to the Town of East Hartford, State of Connecticut, and are further authorized to affix the Corporate Seal to such documents and to bind the Corporation to such contracts, bids and other documents.

I further CERTIFY that such Resolution has not been modified, rescinded or revoked since the date on which it was enacted, and it is at present in full force and effect.

IN WITNESS WHEREFORE, the undersigned has affixed his/her signature and the Corporate Seal of the Corporation, this (date) day of (month) 20__

(Typed name of Corporation's Secretary)

SIGNATURE OF SECRETARY

(Corporate Seal)

PRIOR RESOLUTION FOR CORPORATIONS/PROFESSIONAL CORPORATIONS

(TO BE TYPED ON CORPORATION LETTERHEAD)

I (name of Corporation's Secretary), Secretary of (legal name of Corporation) a Corporation duly organized and operating under the laws of (State) and qualified and authorized to do business in the State of Connecticut, DO HEREBY CERTIFY that the following is a true, correct and accurate copy of a Resolution duly adopted at a meeting of the Board of Directors of such Corporation, duly convened and held on (Date of Meeting), at which meeting a duly constituted quorum of the Board of Directors was present and voted in favor of such Resolution.

RESOLVED: That the following Officers of this Corporation, or any one of them individually:

(Name and title of Officer or Officers)

are empowered to (recite resolution authorizing submission of bid or execution of contract).

I further CERTIFY that such Resolution has not been modified, rescinded or revoked since the date on which it was enacted, and it is at present in full force and effect.

IN WITNESS WHEREFORE, the undersigned has affixed his/her signature and the Corporate Seal of the Corporation, this (date) day of (month) 20__

(Typed name of Corporation's Secretary)

SIGNATURE OF SECRETARY

(Corporate Seal)

RESOLUTION FOR LIMITED LIABILITY COMPANIES

(TO BE TYPED ON COMPANY LETTERHEAD)

The undersigned, comprising all Members of (legal name of LLC), a Limited Liability Company duly organized and operating under the laws of (State) and qualified and authorized to do business in the State of Connecticut, DO HEREBY CERTIFY that the following is a true, correct and accurate copy of a Resolution duly adopted at a meeting of the Members, duly convened and held on (Date of Meeting), at which meeting a duly constituted quorum of the voting Members was present and voted in favor of such Resolution. We further CERTIFY that such Resolution has not been modified, rescinded or revoked since the date on which it was enacted, and it is at present in full force and effect:

RESOLVED: That the following Members of this Limited Liability Company, or any one of them:

(Name and title of Members)

are empowered to execute and deliver, in the name of and on behalf of this Limited Liability Company, contracts, bids and other documents to the Town of East Hartford, State of Connecticut, and are further authorized to bind the Limited Liability Company to such contracts, bids and other documents.

IN WITNESS WHEREFORE, the undersigned have executed this resolution, this (date) day of (month) 20__

(Typed Member Name)

(Typed Member Name)

(Typed Member Name)

(Typed Member Name)

RESOLUTION FOR LIMITED LIABILITY COMPANIES BY MANAGING PARTNER

(TO BE TYPED ON COMPANY LETTERHEAD)

I (name of Managing Member), Managing Member of (legal name of LLC), a Limited Liability Company duly organized and operating under the laws of (State) and qualified and authorized to do business in the State of Connecticut, DO HEREBY CERTIFY that the following is a true, correct and accurate copy of a Resolution duly adopted at a meeting of the Members, duly convened and held on (Date of Meeting), at which meeting a duly constituted quorum of the voting Members was present and voted in favor of such Resolution. I further CERTIFY that such Resolution has not been modified, rescinded or revoked since the date on which it was enacted, and it is at present in full force and effect:

RESOLVED: That the following Members of this Limited Liability Company, or any one of them:

(Name and title of Members)

are empowered to execute and deliver, in the name of and on behalf of this Limited Liability Company, contracts, bids and other documents to the Town of East Hartford, State of Connecticut, and are further authorized to bind the Limited Liability Company to such contracts, bids and other documents.

IN WITNESS WHEREFORE, the undersigned has affixed his/her signature, this (date) day of (month) 20__

(Typed name of Managing Partner)

SIGNATURE OF MANAGING PARTNER

RESOLUTION FOR PARTNERSHIPS

(TO BE TYPED ON COMPANY LETTERHEAD)

The undersigned, comprising all (partners/general partners) of (legal name of partnership), a (partnership/Limited Partnership/Limited Liability Partnership) duly organized and operating under the laws of (State) and qualified and authorized to do business in the State of Connecticut, DO HEREBY CERTIFY that the following is a true, correct and accurate copy of a Resolution duly adopted at a meeting of the voting (partners/general partners), duly convened and held on (Date of Meeting), at which meeting a duly constituted quorum of the voting partners was present and voted in favor of such Resolution. We further CERTIFY that such Resolution has not been modified, rescinded or revoked since the date on which it was enacted, and it is at present in full force and effect:

RESOLVED: That the following (partners/general partners) of this Limited Liability Company, or any one of them:

(Name and title of partners/general partners)

are empowered to execute and deliver, in the name of and on behalf of this (partnership/Limited Partnership/Limited Liability Partnership), contracts, bids and other documents to the Town of East Hartford, State of Connecticut, and are further authorized to bind the (partnership/Limited Partnership/Limited Liability Partnership) to such contracts, bids and other documents.

IN WITNESS WHEREFORE, the undersigned have executed this resolution, this (date) day of (month) 20__

(Typed partner/general partner Name)

(Typed partner/general partner Name)

(Typed partner/general partner Name)

(Typed partner/general partner Name)

PERFORMANCE BOND

Bond No. _____

KNOW ALL MEN BY THESE PRESENTS:

THAT _____ as Principal,
 Hereinafter called "PRINCIPAL," and _____ as Surety,
 hereinafter called "SURETY," are held and firmly bound unto the Town of East Hartford, Connecticut,
 as Obligee, hereinafter called "TOWN," in the amount of _____ Dollars,
 (\$ _____), for the payment whereof PRINCIPAL and SURETY bind themselves, their
 heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, PRINCIPAL has by written Contract dated _____ entered into
 a Contract with TOWN for BID # _____, which
 Contract is by reference made a part hereof, and is hereinafter referred to as the "CONTRACT."

NOW, THEREFORE, the condition of this obligation is such that, if PRINCIPAL shall promptly and faithfully perform said CONTRACT, and shall certify in writing that all wages paid under said CONTRACT to any mechanic, laborer or workman were equal to the rates of wages customary or then prevailing for the same trade or occupation in the Town of East Hartford, then this obligation shall be null and void, otherwise it shall remain in full force and effect.

Whenever PRINCIPAL shall be, and declared by the TOWN to be in default under the CONTRACT, the TOWN having performed its obligations thereunder, the SURETY may promptly remedy the default, or shall promptly:

1. Complete the CONTRACT in accordance with its terms and conditions; or
2. Obtain a bid or bids for submission to the TOWN for completing the CONTRACT in accordance with its terms and conditions, and upon determination by the TOWN and SURETY of the lowest possible bidder, arrange for a CONTRACT between such bidder and the TOWN, and make available as work progresses (even though there should be a default or a succession of defaults under the CONTRACT or Contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the Contract Price; but not exceeding, including other costs and damages for which the SURETY may be liable hereunder, the amount set forth in the first paragraph hereof. The term, "Balance of the Contract Price," as used in this paragraph, shall mean the total amount payable by the TOWN to PRINCIPAL under the CONTRACT and any amendments thereto, less the amount properly paid by the TOWN to the PRINCIPAL.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the TOWN named herein or the heirs, executors, administrators or successors of TOWN.

Signed and sealed this _____ day of _____, A.D., 20____.

In the Presence of:

_____ (SEAL)

(PRINCIPAL)

By: _____

(SURETY)

By: _____

LABOR AND MATERIALS BOND

Bond No. _____

KNOW ALL MEN BY THESE PRESENTS:

THAT _____ as Principal,
 Hereinafter called "PRINCIPAL," and _____ as Surety,
 hereinafter called "SURETY," are held and firmly bound unto the Town of East Hartford, Connecticut,
 as Obligee, hereinafter called "TOWN," in the amount of _____ Dollars,
 (\$ _____), for the payment whereof PRINCIPAL and SURETY bind themselves, their
 heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, PRINCIPAL has by written Contract dated _____ entered into
 a Contract with TOWN for BID # _____, which
 Contract is by reference made a part hereof, and is hereinafter referred to as the "CONTRACT."

NOW, THEREFORE, if the CONTRACTOR and his/her subcontractors shall pay all indebtedness
 incurred for supplies, materials or labor furnished, used or consumed in connection with, or in or about
 the construction or making of, public improvements, including gasoline, lubricating oils, fuel oils,
 greases, coal and similar items used or consumed directly in furtherance of such improvements, this
 obligation shall be void; otherwise it shall remain in full force and effect;

PROVIDED FURTHER, that the surety, for value received, hereby stipulates and agrees that no change,
 extension of time, alteration, or addition to the terms of the contract, or work to be performed
 thereunder, or the specifications accompanying the same, shall in any way affect its obligations on this
 bond and it does hereby waive notice of any change, extension of time, alteration, or addition to the
 terms of the contract, or to the work, or to the specifications;

PROVIDED FURTHER, that the Surety agrees that any person to whom there is due any sum for
 supplies, materials or labor, as hereinbefore stated, or his/her assigns, may bring an action on this bond
 for the recovery of indebtedness; PROVIDED that no action shall be brought on the bond after twelve
 (12) months from the completion of public improvements.

IN TESTIMONY WHEREOF, the CONTRACTOR has hereunto set his/her hand and said surety has caused these presents to be executed in its name, and its corporate seal to be hereunto affixed, by its attorney-in-fact duly authorized to do so.

Signed and sealed this _____ day of _____, A.D., 20____.

In the Presence of:

(PRINCIPAL) (SEAL)

By: _____

(SURETY)

By: _____

SECTION 5:
Standard General Conditions of the Construction Contract
for the Town of East Hartford

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

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by



Issued and Published Jointly by



These General Conditions have been prepared for use with the Agreement Between Owner and Contractor for Construction Contract (EJCDC® C-520, Stipulated Sum, or C-525, Cost-Plus, 2013 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other.

To prepare supplementary conditions that are coordinated with the General Conditions, use EJCDC's Guide to the Preparation of Supplementary Conditions (EJCDC® C-800, 2013 Edition). The full EJCDC Construction series of documents is discussed in the Commentary on the 2013 EJCDC Construction Documents (EJCDC® C-001, 2013 Edition).

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. 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, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
 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. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 7. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 8. *Change Order*—A document 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, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer

has declined to address. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. (“CERCLA”); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5501 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. (“RCRA”); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.
13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .
15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
17. *Cost of the Work*—See Paragraph 13.01 for definition.
18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
20. *Engineer*—The individual or entity named as such in the Agreement.
21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.
23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.
26. *Notice of Award*—The written notice by Owner to a Bidder of Owner’s acceptance of the Bid.
27. *Notice to Proceed*—A written notice 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.
28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
29. *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.
30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.
32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or “RPR” includes any assistants or field staff of Resident Project Representative.
33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer’s review of the submittals and the performance of related construction activities.
35. *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.
36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

37. *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, and such other lands furnished by Owner which are designated for the use of Contractor.
38. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
39. *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.
40. *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.
41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.
42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
43. *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 a Subcontractor.
44. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.
45. *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 but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
46. *Unit Price Work*—Work to be paid for on the basis of unit prices.
47. *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; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

48. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 *Terminology*

- A. The words and terms discussed in the following paragraphs 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 Article 10 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 15.03 or 15.04).
- 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. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words "furnish," "install," "perform," or "provide," then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.
- 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. *Bonds:* 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 Contractor's Insurance:* When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.
- C. *Evidence of Owner's Insurance:* After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), 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;
 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.

2.04 *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 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, 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 and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *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 2.03.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.
- B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or

computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, 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.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 *Reference Standards*

- A. Standards Specifications, Codes, Laws and Regulations
 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, 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, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract 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, reference standard, 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 part of the Contract Documents prepared by or for Engineer. 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 part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

- A. *Reporting Discrepancies:*
 1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict,

error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

2. *Contractor's Review of Contract Documents:* If, before or 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) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) 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 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
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 part of the Contract Documents prepared by or for Engineer shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); 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 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.
- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers 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 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; or
 - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.
- 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.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *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 Contract 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 Contract. 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 Contract, whichever date is earlier.

4.02 *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 such date.

4.03 *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.

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 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 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.

- B. 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, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, 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 Times and Contract Price. 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.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. 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. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 2. abnormal weather conditions;
 3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and
 4. acts of war or terrorism.
- D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.
- E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.
- F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.

- G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *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.
- 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 permanent improvements are to be made 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.

5.02 *Use of Site and Other Areas*

- A. *Limitation on Use of Site and Other Areas:*
 - 1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
 - 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, 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 any such claim, and against all 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 directly or indirectly, in whole or in part

by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent 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 and adjacent areas 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 of 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 structures or land to stresses or pressures that will endanger them.

5.03 *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 adjacent to the Site;
 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and
 3. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on 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.

5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site 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 5.03 is materially inaccurate; or
 2. is of such a nature as to require a change in the Drawings or Specifications; 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 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.
- D. *Possible Price and Times Adjustments:*
1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, 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 fall within any one or more of the categories described in Paragraph 5.04.A;
 - 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 Paragraph 13.03; and,

- c. 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.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a 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 otherwise; or
 - b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 5.04.A.
3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent 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 do not warrant or guarantee 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 information and data regarding existing Underground Facilities at the Site;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;
 - c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 - d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then 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 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.

- C. *Engineer's Review:* Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Possible Price and Times Adjustments:*
1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;
 - 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 Paragraph 13.03;
 - c. 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; and
 - d. Contractor gave the notice required in Paragraph 5.05.B.
 2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

- A. *Reports and Drawings*: The Supplementary Conditions identify:
1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
 2. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on 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 removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) 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 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. 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, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.
- H. 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, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.
- I. 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 (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.H shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. 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 failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6 – BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, 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. 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 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.
- B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond 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 the accompanying bond.
- C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.
- D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then 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 bond and surety requirements above.
- E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.
- F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is

maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

- D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, 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.
- G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.
- H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.
- I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.
- J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 *Contractor's Insurance*

- A. *Workers' Compensation*: Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:
 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.
 2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
 3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).

4. Foreign voluntary worker compensation (if applicable).
- B. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:
1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
 2. claims for damages insured by reasonably available personal injury liability coverage.
 3. 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.
- C. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:
1. Products and completed operations coverage:
 - a. Such insurance shall be maintained for three years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
 2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
 3. Broad form property damage coverage.
 4. Severability of interest.
 5. Underground, explosion, and collapse coverage.
 6. Personal injury coverage.
 7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.
 8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
- D. *Automobile liability:* Contractor shall purchase and maintain automobile liability insurance against 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. The automobile liability policy shall be written on an occurrence basis.
- E. *Umbrella or excess liability:* Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.
- F. *Contractor's pollution liability insurance:* Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result

of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.

- G. *Additional insureds*: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; 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 (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.
- H. *Contractor's professional liability insurance*: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.
- I. *General provisions*: The policies of insurance required by this Paragraph 6.03 shall:
1. include at least the specific coverages provided in this Article.
 2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.
 3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.
 4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.
 5. be appropriate for the Work being performed and provide protection from claims that 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.
- J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

6.04 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, 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.
- B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

6.05 *Property Insurance*

- A. *Builder's Risk:* Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable 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 Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."
 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; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; 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. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.
 3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.
 4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).

5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
 6. extend to cover damage or loss to insured property while in transit.
 7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
 8. allow for the waiver of the insurer's subrogation rights, as set forth below.
 9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
 10. not include a co-insurance clause.
 11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
 12. include performance/hot testing and start-up.
 13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.
- B. *Notice of Cancellation or Change:* All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.
- C. *Deductibles:* The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.
- D. *Partial Occupancy or Use by Owner:* If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
- E. *Additional Insurance:* If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.
- F. *Insurance of Other Property:* If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 *Waiver of Rights*

- A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, 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 insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the 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 Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, 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 or Contractor as trustee or fiduciary, 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 occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.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, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.
- D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, 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 builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the

policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 *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.
- 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.

7.02 *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, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.03 *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, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work 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.

7.04 "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 Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item 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 is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that 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, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) it has a proven record of performance and availability of responsive service; and
 - 4) it is not objectionable to Owner.
 - 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.
- B. *Contractor's Expense:* Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

- D. *Effect of Engineer's Determination:* Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.
- E. *Treatment as a Substitution Request:* If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer consider the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 Substitutes

- A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.
 - 1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.
 - 2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
 - 3. 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:
 - a. shall certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design,
 - 2) be similar in substance to that specified, and
 - 3) be suited to the same use as that specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,
 - 2) 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
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from that specified, and

- 2) available engineering, sales, maintenance, repair, and replacement services.
- d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. 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.
- E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.
- B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.

- E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.
- F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. 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 the right of Owner to the completion of the Work in accordance with the Contract Documents.
- H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. 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.
- J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.
- K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.
- L. 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.
- M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.
- N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.

O. 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 money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

7.07 *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.

7.08 *Permits*

- A. Unless otherwise provided in the Contract Documents, 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 the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work

7.09 *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.

7.10 *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 or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and 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 such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *Record Documents*

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

7.12 *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, other work in progress, 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 Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
 - 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 7.12.A.2 or 7.12.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 at its expense (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 protection 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 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).
 - G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 *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.

7.14 *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.

7.15 *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.

7.16 *Shop Drawings, Samples, and Other Submittals*

A. *Shop Drawing and Sample Submittal Requirements:*

1. Before submitting a Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated the 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 and equipment 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 of that submittal, and that Contractor approves the 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 set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.

- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

- a. Contractor shall submit the number of copies required in the Specifications.
- 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 7.16.D.

2. *Samples:*

- a. Contractor shall submit the number of Samples required in the Specifications.
- b. Contractor shall 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 7.16.D.

3. 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. *Other Submittals:* Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.

D. *Engineer's Review:*

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.
3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
4. Engineer's review and approval of a Shop Drawing or Sample 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 7.16.A.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 will document any such approved variation from the requirements of the Contract Documents in a Field Order.
5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.

8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.
2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 *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 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;
 6. the issuance of a notice of acceptability by Engineer;
 7. any inspection, test, or approval by others; or
 8. any correction of defective Work by Owner.

- D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, 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 7.18.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 7.18.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.

7.19 *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 Laws and Regulations.
- 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, 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, 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 7.16.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

ARTICLE 8 – OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. 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.
- D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, 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.

8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
1. the identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 2. an itemization of the specific matters to be covered by such authority and responsibility; and
 3. the extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

- A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. 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.
- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this paragraph.
- C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.

- D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) 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 any such claims, and against all 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 damage, delay, disruption, or interference.

ARTICLE 9 – OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

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

9.02 *Replacement of Engineer*

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents shall be that of the former Engineer.

9.03 *Furnish Data*

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

9.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *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.

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *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 (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- 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.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION

10.01 *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.

10.02 *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 10.08. 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.

10.03 *Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. 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.

10.04 *Rejecting Defective Work*

- A. Engineer has the authority to reject Work in accordance with Article 14.

10.05 *Shop Drawings, Change Orders and Payments*

- A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.
- B. 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, are set forth in Paragraph 7.19.
- C. Engineer's authority as to Change Orders is set forth in Article 11.
- D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

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

- A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.08 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, 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 15.06.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 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs (if any) of which Engineer has been informed.

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

11.01 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
 - 1. *Change Orders:*
 - a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.
 - b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.
 - 2. *Work Change Directives:* A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an

adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

3. *Field Orders*: Engineer may authorize minor changes in the Work if the changes 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. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 *Owner-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. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.03 *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, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

11.04 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.
- B. 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, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or
 2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or
 3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on

the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).

- C. *Contractor's Fee*: When applicable, 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 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 13.01.B.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 11.01.C.2.a and 11.01.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
 - 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 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.
- B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

11.06 *Change Proposals*

- A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under

the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.

1. *Procedures:* Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.
 2. *Engineer's Action:* Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.
 3. *Binding Decision:* Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- B. *Resolution of Certain Change Proposals:* If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 Execution of Change Orders

- A. Owner and Contractor shall execute appropriate Change Orders covering:
1. 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;
 2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and
 4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.

- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 *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.

ARTICLE 12 – CLAIMS

12.01 *Claims*

- A. *Claims Process:* The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:
 1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;
 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and
 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.
- B. *Submittal of Claim:* The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. *Review and Resolution:* The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation:*
 1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.
 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim

submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval:* If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim:* If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results:* If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 *Cost of the Work*

- A. *Purposes for Determination of Cost of the Work:* The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
 1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
 2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included:* Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work 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 13.01.C, 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, and 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 13.01.
 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 6.05), 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 communication 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 that Contractor is required by the Contract Documents to purchase and maintain.

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

- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here 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 Paragraph 13.01.B.

D. *Contractor's Fee:* When the Work as a whole 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, Change Proposal, Claim, set-off, or other 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 11.04.C.

E. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, 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.

13.02 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*: Contractor agrees that:
 1. 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
 2. 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*: 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.

13.03 *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. Payments to Contractor for Unit Price Work will be based on actual quantities.
- 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. 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 the following paragraph.
- E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price 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;
 2. there is no corresponding adjustment with respect to any other item of Work; and
 3. Contractor believes that it 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 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction 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.

14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.
- 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, obtaining, and paying for all inspections and tests required:
 1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 3. by manufacturers of equipment furnished under the Contract Documents;
 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. 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. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to

cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects:* Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement:* Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties:* When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. *Costs and Damages:* In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages 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. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require special inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then 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, and provide all necessary labor, material, and equipment.
 - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages 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 pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
 - 2. 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, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *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, then 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.

14.07 *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, 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, then 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 14.07, 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, 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 incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. 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 14.07.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 *Progress Payments*

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 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 during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *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, a warehouse bond, 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.
- C. *Review of Applications:*
1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, 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 13.03, 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; 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 money 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 15.01.C.2.
 6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
 - a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or

- e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due:*

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

E. *Reductions in Payment by Owner:*

- 1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
 - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. the Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. the Contract Price has been reduced by Change Orders;
 - i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;
 - j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. 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;
 - l. there are other items entitling Owner to a set off against the amount recommended.
- 2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, 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, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

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 15.01.C.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than seven days after the time of payment by Owner.

15.03 *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 and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. 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 punch list.

15.04 *Partial Use or Occupancy*

- 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. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be 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 15.03.A through E for that part of the Work.
 2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 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 6.05 regarding builder's risk or other property insurance.

15.05 *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, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *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, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
 - d. a list of all disputes that Contractor believes are unsettled; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) 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, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

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 have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. 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 15.07. 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. *Completion of Work:* The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.

D. *Payment Becomes Due:* Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation,

including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 *Waiver of Claims*

- A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

15.08 *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 Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such other adjacent areas;
 - 2. correct such defective Work;
 - 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 to 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. 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 repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).
- 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, 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 are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 *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 written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and 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);
 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:
 1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and
 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, 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 complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.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 the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses,

and damages exceeds 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.

- F. 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, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) 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 16.03.
- 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 are not intended to preclude Contractor from submitting a Change Proposal 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 17 – FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this Article:
1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and
 2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this Article, Owner or Contractor may:
1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions; or
 2. agree with the other party to submit the dispute to another dispute resolution process; or
 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18 – MISCELLANEOUS

18.01 *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, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or
 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

18.02 *Computation of Times*

- A. When any period of time is referred to in the Contract 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.

18.03 *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. 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.

18.04 *Limitation of Damages*

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

- A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

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

18.07 *Controlling Law*

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

18.08 *Headings*

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

SECTION 6:
Town of East Hartford
Supplemental Conditions



TOWN OF EAST HARTFORD, CONNECTICUT

SUPPLEMENTAL CONDITIONS

These Supplemental Conditions amend or supplement the Standard General Conditions of the Construction Contract (EJCDC_C700, 2013 edition.) and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

5.01 Availability of Lands

Amend this article as follows:

- 1) The Contractor shall not store materials or equipment within Town or State right-of-way.
- 2) Evidence of agreement(s) with private property owner(s) for the storage of equipment and materials must be provided to the Town.
- 3) The Contractor may be allowed to store materials or equipment on Town parcels with written permission from the Engineer. Terms and conditions of the use of Town parcels will be negotiated before the start of work.
- 4) In no case, even with the property owner's consent, will storage of materials or equipment be allowed where such storage will impact sightlines at intersecting roadways.
- 5) Access to all businesses and residences within the project limits must be maintained at all times. The Contractor shall coordinate his/her work, provide safe and ready means of ingress and egress to all stores and shops, public and private professional offices, and any other businesses or residences in the project area, both day and night, for the duration of the project. As required by the Engineer, the Contractor shall install and maintain temporary ramps at driveways. If there is a lump sum bid price for the Maintenance and Protection of Traffic, the cost of installing, maintaining, and removing the temporary ramps shall be included in the lump sum price bid for Maintenance and Protection of Traffic. Otherwise, this Work will be performed without additional compensation.

5.02 Use of Site and Other Areas

Amend this article as follows:

- 1) The Contractor shall conduct the Work at all times in such a manner as to ensure the least possible obstruction to both vehicular and pedestrian traffic. All equipment and materials shall be placed or stored in such a way and in such locations as will not create a hazard to the general public.
- 2) The Contractor shall notify residents and businesses in writing at least 24 hours in advance of any Work which will impact access to their property. Work shall be coordinated such that no residential or commercial driveway access is fully closed at any time.
- 3) The Contractor shall provide such barricades, signs, warnings, flagmen and shall conduct his Work in such a manner so that hazards to vehicular and pedestrian traffic are at a minimum. If, in the opinion

TOWN OF EAST HARTFORD, CONNECTICUT

SUPPLEMENTAL CONDITIONS (*cont'd*)

of the Engineer or other Town Public Safety Authorities, additional precautions or measures should be taken in the interest of public safety, the Contractor shall so comply promptly.

- 4) If the Contractor finds it necessary to close a portion of the road to vehicular traffic, then a Road Closure permit shall be obtained from the Engineer and the Chief of the East Hartford Police Department. The Contractor shall notify the Fire Department and any other concerned agencies of such road closing. Access shall be provided at all times to fire hydrants and precautions shall be taken to prevent freezing of any exposed or partially uncovered water lines.

5.05.A.2.c Underground Facilities: Contractor's Responsibilities

Amend this article as follows:

- 1) At least two full days before, (excluding Saturdays, Sundays and holidays) but not more than thirty days prior to commencing excavation, the Contractor shall call the telephone number 1-800-922-4455 (Call Before You Dig) to allow notification of utilities.
- 2) The Contractor shall be responsible to support all utility poles in the vicinity of excavations necessary to perform Work under this project. The Contractor must obtain all approvals required by the custodian of the utility pole, and coordinate all Work. There will be no direct payment for the support of utility poles.

5.06 Hazardous Environmental Conditions at Site

Delete paragraph I in its entirety.

7.08 Permits

Amend this article as follows:

- 1) Permits and licenses obtained by the Contractor prior to performing any Work and may include water and sewer permits (MDC), building permits, driveway and sidewalk permits, excavation permits, and Connecticut Department of Transportation Encroachment permits.
- 2) The Contractor will give all permit notices and comply with all laws, ordinances, rules and regulations applicable to the Work. If the Contractor observes that the Contract Drawings and Specifications are at variance therewith, he will give the Engineer prompt written notice thereof, and any necessary changes shall be adjusted by an appropriate modification. If the Contractor performs any Work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the Engineer, he will bear all costs arising there from.
- 3) For any Work within the Town right-of-way, on Town properties, or within the State highway right of way (for sidewalks only), the Contractor shall obtain a license and permit from the East Hartford Department of Public Works for the project. The license requires submission of a separate insurance certificate, a \$10,000 bond, and a hold harmless agreement. Licenses expire on December 31 of the year of issue. The Contractor is required to pay a \$35.00 license fee. Once the license has been

TOWN OF EAST HARTFORD, CONNECTICUT

SUPPLEMENTAL CONDITIONS (*cont'd*)

obtained, the Contractor shall apply for a permit for this project. The \$50.00 permit fee will be waived for this project.

- 4) Prior to any construction involving or impacting facilities owned and/or operated by the Metropolitan District Commission (MDC), the Contractor must obtain all necessary permits pertinent to the work being performed.
- 5) Certain work including, but not limited to, retaining wall construction and electrical work, requires a building permit. The Contractor shall secure building permit(s) for such work at the Town of East Hartford Inspections and Permits Department. Unless otherwise noted in a "Notice to Contractor", the Town's portion of the permit fee will be waived. The Contractor will be required to pay the State of Connecticut portion of any building permit. Contact the Inspections and Permits office at 860-291-7345 for building permit information.
- 6) Some projects require special approval(s) from the Town of East Hartford Planning and Zoning Commission, the State of Connecticut Department of Environmental Protection (DEP), the United States Army Corps of Engineers or any other agency with jurisdictional rights. In most of these cases, separate plans have been approved and are on file. Any specific permit approval(s) by another agency or commission will be attached to the Contract Documents. If such permits are identified, then the approved permit plans are hereby made part of the Contract Documents and the Contractor represents that he/she is fully aware of all the requirements of the permit and his/her intention to comply with such requirements.

7.09 Taxes

Amend this article as follows:

- 1) Materials and equipment purchased for installation in this project will be exempt from the Connecticut Sales and Use Tax under the Connecticut Education, Welfare and Public Health Tax Act.

7.12 Safety and Protection

Amend this article as follows:

- 1) The Contractor shall be responsible for the protection and replacement of all survey markers, streetline monuments, and private property markers. Any survey markers, streetline monuments or private property markers disturbed or destroyed during construction will be replaced at the Contractor's own expense. Work must be performed by a Land Surveyor licensed in the State of Connecticut.
- 2) The Contractor shall protect his Work so as to prevent damage and/or vandalism to newly poured sidewalks and other concrete surfaces. Any newly poured sidewalks or ramps which are damaged or defaced shall be promptly repaired or replaced at the Contractor's expense. Determination to repair or replace will be at the sole discretion of the Engineer.

TOWN OF EAST HARTFORD, CONNECTICUT

SUPPLEMENTAL CONDITIONS (*cont'd*)

- 3) The Contractor will take precautionary measures to protect all public and private trees or shrubs remaining within or adjacent to the Project area. This also includes protection of root systems that may become damaged due to the excavation activities near or adjacent to vegetation designated to remain.
- 4) The Contractor shall be fully responsible for compensation, repair, or replacement of any damaged tree or shrub because of neglect by the Contractor or any of his/her assigned Subcontractors.
- 5) The Contractor's attention is called to the fact that there are underground traffic control facilities (e.g. loop detectors) at various intersections in the Town of East Hartford. Should these facilities become damaged during the course of the Work; the Contractor will be responsible for replacement of the equipment in accordance with the current Connecticut DOT installation standards. Splicing of the detector loops will not be permitted. Replacement of traffic control equipment will be at the Contractor's expense.

8.02 Coordination

Amend this article as follows:

- 1) The Contractor shall accommodate routine and emergency maintenance operations performed by the Town (i.e. refuse pickup, leaf collection, snow plowing, etc.) within the Work area.

12.01 Claims

Amend this article as follows:

- 1) Any claims received by the Owner for damage to private property as a result of the Contractor's operations, or lack of protective measures to prevent such damage, will be forwarded directly to the Contractor for resolution. For each claim, the Contractor shall provide to the Town evidence that the claim has been resolved.

14.02 Tests, Inspections and Approvals

Amend this article as follows:

- 1) The Contractor shall always notify the Engineer of its intention to perform work on the Project, including notice of the particular work it intends to perform, at least 24 hours before the Contractor commences that work. The Engineering Division can be reached between 8:30 a.m. and 4:30 p.m. at (860) 291-7380.
- 2) In instances when it shall be necessary to utilize Department inspectors during other than normal Department working hours, the Contractor shall make payment to the Town of East Hartford for such use. Normal working hours for the Department are from 8:30 a.m. to 4:30 p.m. daily, Monday through Friday, excluding holidays. Payment will be made in accordance with the following:
 - a. For each Department employee utilized by the Contractor, the Town shall receive the standard overtime rate paid to the employee by the Department.

TOWN OF EAST HARTFORD, CONNECTICUT

SUPPLEMENTAL CONDITIONS (*cont'd*)

- b. In the event a Department employee is called out after the end of normal working hours, minimum payment to the Town by the Contractor for each Department employee utilized shall be at the standard overtime rate for a period no less than four (4) hours. Payment for overtime that is a continuation of the normal working day shall be at the standard overtime rate for the actual hours worked. There will be no charge for use of Department personnel during normal working hours for services provided by the Department.

15.01 Progress Payments

Amend this article as follows:

- 1) The Contractor shall submit a list of claims, and their status, with each application for a progress payment.

15.06 Final Payment

Amend this article as follows:

- 2) The Town will not release final retainage for any project where there are any unresolved claims for private property damage, as described in the Supplemental Condition for Article 12.01.

SECTION 7:
TECHNICAL SPECIFICATIONS

SECTION 00900 – SPECIAL CONDITIONS

1. SPECIAL CONDITIONS DEFINITIONS

- A. Contractor is to contact the Purchasing Department regarding bid procedure and purchasing questions. Contact should be by telephone or email to:

Ms. Michelle Enman
Purchasing Department
Town of East Hartford
Town Hall
740 Main Street, Lower Level
East Hartford, Connecticut 06108
(860) 291-7271
Email: menman@easthartfordct.gov

- B. Contractor is to contact the Building Superintendent regarding site visit questions. Contact should be made by telephone or email to:

Mr. Joe Salamone
Building Superintendent
61 Ecology Drive
East Hartford, Connecticut 06108
Tel: (860) 291-7362
Email: jsalamone@easthartfordct.gov

- C. Architectural questions on specifications and drawings are to be addressed to:

Mr. David Holmes
Capital Studio Architects, LLC
1379 Main Street
East Hartford, Connecticut 06108
Tel: (860) 289-3262
Email: dholmes@capitalstudio.net

- D. Structural questions on specifications and drawings are to be addressed to:

Mr. William Lapoint
William Lapoint, PE
1379 Main Street
East Hartford, Connecticut 06108
Tel: (860) 622-0840
Email: wmlpe@aol.com

2. JOB MEETINGS

- A. The Contractor and others concerned with the project whose presence is necessary as determined by the Owner and/or the Architect are to attend job meetings when requested for the purpose of discussing and expediting the prosecution of the work.
- B. The schedule for meetings will be established by the Owner and/or the Architect.
- C. The proceedings of these meetings will be recorded by the Owner and/or the Architect; the Contractor will be furnished a copy for his use and distribution as required.

3. SCHEDULE OF THE WORK

- A. The available working hours are from 7:30 a.m., until 3:30 p.m., Monday through Friday on days which the Department of Parks and Recreation is open for business. A list of holidays which their office observes is available from the Department of Parks and Recreation upon request. Any deviation from this list must be approved in advance by the Owner.
- B. The Contractor at all times is to maintain the fire integrity of the structures and is to maintain, free and clear all exit ways.
- C. The Contractor must provide the Owner a 48 hour notice prior to the start of work.

4. TEMPORARY FACILITIES

- A. The Contractor is to provide and maintain an adequate office at the project site at his discretion. If provided, it is to be located as directed by the Owner. It is to be kept clean, have adequate light, heating, cooling and ventilation.
- B. The Contractor is to provide and maintain telephone service for his own use. No telephone service is available at the site.

5. TEMPORARY SERVICE

- A. The Contractor may connect to water available at the project without payment to the Owner.
- B. The Contractor may use the Owner's electrical power without payment to the Owner.
- C. Fixtures, or other modifications, are the responsibility of the Contractor.

6. SANITARY FACILITIES

- A. Sanitary facilities are available at the project site. The Contractor may use existing facilities at the site for his workers.

7. GUARANTEE PERIOD

- A. Refer to specific Sections of this project manual for warranty and guarantee periods.

8. DEMOLITION

- A. This work includes the furnishing of all labor, materials, equipment and services necessary for, and reasonable incidental to, completion of all Demolition, as required for the installation of the work, whether or not listed below.
- B. The Contractor will be allowed to keep a dumpster on site of the disposal of demolished materials and debris. Final location of the dumpster is to be coordinated with the Owner.

9. SALVABLE MATERIALS

- A. Remove and store existing wall mounted stair handrails for reuse.

10. FINAL PAYMENT REQUIREMENTS

- A. Final Payment will not be approved until all items as outlined in Section 01770 have been completed.
- B. All guarantees and warranties for new materials will commence at date of written Final Acceptance of the Work, by the Owner, or its designated agent.

11. CLEAN UP

- A. Project site is to be cleaned daily or as required to keep project area free from rubbish and debris. Burning of rubbish is not allowed. All debris is to be removed from the site and deposited legally off-site.
- B. Final cleanup is to include all debris, stains, and other defacement caused by the work.

12. HAZARDOUS MATERIALS

- A. It is not the intention that this project requires abatement of hazardous materials by this Contractor. It is intended that work done in coordination with hazardous materials be done within the quantities specified by the state and local authorities regulating abatement of these materials. It is believed that no hazardous materials will be encountered.

13. MAINTAINING ENTRY TO BUILDING

- A. The building will remain open during the course of construction. The general contractor is to coordinate its work with the Owner so that the public can enter and exit the building at all times. A clear path must be maintained from the main parking area and street sidewalk to the doors. When the general contractor is required, during the course of work, to close down an entry this must be coordinated and approved by the Owner in advance, so that the Owner can make whatever notifications and changes it requires in advance.

14. MAINTAINING HANDICAPPED ACCESSIBILITY

- A. As the construction activity affects the buildings accessible entrance below, the contractor is to make every effort to maintain the accessible access to the building. When the accessible entrance needs to be taken offline, the time period is to be kept to a minimum. This may include working off hours or weekends during periods when the accessible entrance must be temporarily closed. Scheduling of taking the accessible entrance offline must be approved in advance by the Town of East Hartford.

15. EXISTING SCAFFOLDING

- A. Presently the Town of East Hartford is in contract with a scaffolding company which has erected scaffolding along the building façade where this project's new scope of work will take place.
- B. The contract between the scaffolding contractor and the Town of East Hartford will end on the Notice to Proceed date for this new project. The successful bidder may enter into a separate contract with the existing scaffolding company effective on the Notice to Proceed date if they so choose, therefore leaving the existing scaffolding in place.
- C. If the successful bidding contractor prefers to provide scaffolding for their work, and pedestrian protection by other means they may do so, however, they must make their intentions known to the Town of East Hartford, no later than the date of the contract signing.
- D. The Contractor is to coordinate in advance with the Owner material storage locations and the methods and locations for lifting of materials.

END OF SECTION 00900

SECTION 01100 – SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplemental General Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Work covered by the Contract Documents.
 - 2. Type of the Contract.
 - 3. Use of premises.
 - 4. Owner's occupancy requirements.
 - 5. Work restrictions.
 - 6. Specification formats and conventions.
- B. Related Sections include the following:
 - 1. Division 1 Section "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: Exterior Repairs for the East Hartford Community Cultural Center
 - 1. Project Location: 50 Chapman Place, East Hartford, CT 06108
- B. Owner: Town of East Hartford, 740 Main Street, East Hartford, CT 06108
- C. Architect: Capital Studio Architects, LLC., 1379 Main Street, East Hartford, CT 06108
- D. Without force and effect, the work generally consists of the following:
 - 1. Replace existing cast in place concrete stairs at east entrance of the Community Cultural Center.
 - a. Temporary removal and reinstallation of existing brick pavers to facilitate the work.
 - b. Remove existing concrete slab/metal deck and treads and risers.
 - c. Clean, prime and paint existing steel beams, which remain.
 - d. Form and pour new concrete as shown on the Drawings, including but not limited to; rebar installation, metal stair nosing's and water-stops. Concrete finish is to be as follows;
 - i. Vertical surfaces – rubbed finish
 - ii. Horizontal slabs and treads – light broom finish
 - iii. Water Repellent for all cast in place concrete.

- e. Cutting and patching.
 - f. Temporary shoring or supports.
 - g. Intermediate Handrail – Remove and replace with new handrail as shown on the Drawings.
 - h. Wall Handrails: Remove, clean and repaint. Store and remount providing any missing or broken fasteners.
 - i. Remove and replace existing suspended exterior gypsum board ceiling, beneath steps, including all framing.
2. Remove and replace existing cast stone frieze along entire east elevation of the building. (See Bid Alternates).
 3. Remove and replace other cast stone pieces on the east elevation as shown on the Drawings.
 4. Remove existing copper flashing and precast concrete at tops of top of turrets and replace with new precast concrete pieces. (See Bid Alternates).
 5. Brick masonry repointing, spalled brick replacement, and cleaning.
- 1.4 TYPE OF CONTRACT
- A. Project will be constructed under a single prime contract.
- 1.5 USE OF PREMISES
- A. General: Contractor will have full use of premises for construction operations, including use of Project site, during construction period. Contractor's use of premises is limited only by Owner's right to perform work or to retain other contractors on portions of Project.
 - B. General: Contractor will have limited use of premises for construction operations as indicated on Drawings by the Contract limits.
 - C. Use of Site: Limit use of premises to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 1. Limits: Confine constructions operations to areas agreed upon with Owner.
 2. Owner Occupancy: Allow for Owner occupancy of the building and use by the public at all times.
 3. Driveways and Entrances: Keep driveways, loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials, except as specifically designated on the plans for this use.
 - a. Schedule deliveries to minimize use of driveways and entrances.
 - b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
 - D. Use of Existing Building: Maintain existing building in a weathertight condition throughout construction period. Repair damage caused by construction operations. Protect building and its occupants during construction period.

1.6 OWNER'S OCCUPANCY REQUIREMENTS

- A. Full Owner Occupancy: Owner will continue to occupy the building and adjacent portions of the site, as well as all associated parking areas to conduct all scheduled day to day operations. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Coordinate access to the building with the Owner at all times. Maintain circulation paths around the site.
1. Provide not less than seventy-two (72) hours' notice to Owner of activities that will affect Owner's operations.

1.7 WORK RESTRICTIONS

- A. On-Site Work Hours: Coordinate with requirements in section 00900 Special Conditions.

1.8 SPECIFICATION FORMATS AND CONVENTIONS

- A. Specification Format: The Specifications are organized into Divisions and Sections using the 16-division format and CSI/CSC's "MasterFormat" numbering system.
1. Section Identification: The Specifications use Section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete because all available Section numbers are not used. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of Sections in the Contract Documents.
 2. Division 1: Sections in Division 1 govern the execution of the Work of all Sections in the Specifications.
- B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings will be interpreted as appropriate. Words implied, but not stated, will be inferred as the sense requires. Singular words will be interpreted as plural and plural words will be interpreted as singular where applicable as the context of the Contract Documents indicates.
 2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.
 - a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01100

SECTION 01330 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 - RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Special Conditions and Division 1 Specification sections apply to work specified in this section.

1.2 - RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Substitutions and product options are indicated in the General Conditions.
- B. Materials and methods requiring submittals are listed, where applicable, within each Respective section of this specification.

1.3 - IDENTIFICATION

- A. Identify each submittal with the following information:
 - 1. Date and revision date(s).
 - 2. Project title.
 - 3. The names of: Architect, Contractor, Subcontractor, supplier, manufacturer or separate detailer when pertinent.
 - 4. Identification of products, materials and finishes.
 - 5. Relation to adjacent structure or material.
 - 6. Field dimensions, clearly identified as such.
 - 7. The specification section number, and applicable standards, such as ASTM or FS number.
 - 8. Quantities.
 - 9. Blank spaces, 4" x 4 1/2" each, for the Architect's stamp, and Consultant's stamp where applicable.
 - 10. Identification of deviations from Contract Documents.
 - 11. Contractor's stamp, initials or signed, certifying to review of submittal, the verification of the field measurements and quantities, and compliance with Contract Documents.

B. Accompany the submittals with a transmittal letter containing:

1. Date.
2. Project Title and number.
3. Contractor's name and address.
4. The number and name of each item submitted.
5. Notification of deviations from Contract Documents.

1.4 - SHOP DRAWINGS

A. Provide the following information, where applicable, on all shop drawings:

1. All necessary dimensions. Dimension work illustrated by shop drawings to fit actual field conditions.
2. Sufficient detailing to show appearance, method of assembly or fabrication, and the method of installation or erection.
3. Identification of details by reference to sheet and detail number shown on Contract Drawings.

1.5 - PRODUCT DATA

A. Manufacturer's standard schematic drawings which are:

1. Modified to delete any information which is not applicable to the Project.
2. Supplemented to provide any additional information applicable to Project.

B. Manufacturer's catalog sheets, brochures, diagrams schedules, performance charts, illustrations and other standard descriptive data.

1. Clearly mark each copy to identify the pertinent materials, products, or models.
2. Show dimensions and clearances required.
3. Show performance characteristics and capacities.

C. Test reports performed by independent testing agencies for manufacturer. On test reports list:

1. System, material or work tested.
2. Test results and witnesses.
3. Description of correction of faults.

1.6 - SAMPLES

- A. Samples are to be of sufficient size and quantity to clearly illustrate:
 - 1. Functional characteristics of product or material, with integrally related parts and attachment devices.
 - 2. Full range of color samples.
 - 3. After the review, approved samples may be used in construction of Project, where appropriate.

1.7 - SUBMISSION REQUIREMENTS

- A. Submit to the Architect all shop drawings, product data and samples required by the specification sections.
- B. Schedule submissions at least 10 business days before dates reviewed submittals will be needed.
- C. Make all shop drawing and product data submissions electronically in full color.
- D. Submission of product data which has not been marked to identify pertinent information will not be reviewed and the contractor will be so notified.
- E. Submit two each of required samples unless a greater number is specified or requested by the Architect.
- F. Submit samples with delivery charges prepaid. Samples delivered in damaged condition may not be acceptable, and may have to be resubmitted, to Architect's discretion.
- G. The Architect may, at his discretion, request submittals in addition to those specified.
- H. Facsimile copies are not acceptable for submission and will not be reviewed. In the event of such submission, the contractor will be so notified.

1.8 - RESUBMISSION REQUIREMENTS

- A. Shop Drawings:
 - 1. Revise the initial drawings as required and resubmit as specified for initial submission.
 - 2. Indicate on drawings any changes which have been made other than those requested by Architect.
- B. Product data and Samples: Submit new data and samples as required for initial submission.

1.9 - ARCHITECT'S DUTIES

- A. Architect's responsibilities for processing submittals are defined in other sections of these specifications.
- B. Architect is not responsible for verifying quantities, dimensions, field measurements, or coordination of work of different trades. Architect's review of submittals are not be construed to include or imply any such verification.

1.10 - CONTRACTOR'S DUTIES

- A. In addition to requirements of other Division 1 Specification sections.
 - 1. Contractor will be responsible for obtaining and distributing prints of shop drawings after, as well as before final approval, to all parties, including, but not limited to the Owner, subcontractors and suppliers.
 - 2. Copies of approved shop drawings are to be made from originals which carry the Architect's and/or Consultant's stamp of approval.
 - 3. Begin no work which requires shop drawings and product data unless the approved and stamp shop drawings and product data are on file at the job site.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED

END OF SECTION 01330

SECTION 01731 - CUTTING AND PATCHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. General provisions of the Contract including General and Special Conditions, and Division 1 Specification sections, apply to work specified in this Section.

1.2 SUMMARY

- A. This Section includes procedural requirements for cutting and patching.
- B. See Divisions 2 through 16 Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.

1.3 SUBMITTALS

- A. Cutting and Patching Proposal: Submit a proposal describing procedures at least 10 days before the time cutting and patching will be performed, requesting approval to proceed. Include the following information:
 - 1. Extent: Describe cutting and patching, show how they will be performed, and indicate why they cannot be avoided.
 - 2. Changes to In-Place Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building's appearance and other significant visual elements.
 - 3. Products: List products to be used and firms or entities that will perform the Work.
 - 4. Dates: Indicate when cutting and patching will be performed.
 - 5. Utility Services and Mechanical/Electrical Systems: List services/systems that cutting and patching procedures will disturb or affect. List services/systems that will be relocated and those that will be temporarily out of service. Indicate how long services/systems will be disrupted.
 - 6. Structural Elements: Where cutting and patching involve adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with original structure.
 - 7. Architect's Approval: Obtain approval of cutting and patching proposal before cutting and patching. Approval does not waive right to later require removal and replacement of unsatisfactory work.

1.4 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.

- B. **Operational Elements:** Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
- C. **Miscellaneous Elements:** Do not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
- D. **Visual Requirements:** Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. **General:** Comply with requirements specified in other Sections.
- B. **In-Place Materials:** Use materials identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. **Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.**
 - 1. **Compatibility:** Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers.
 - 2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. **Temporary Support:** Provide temporary support of Work to be cut.
- B. **Protection:** Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- C. **Adjoining Areas:** Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

- D. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to minimize interruption to occupied areas.

3.3 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 4. Excavating and Backfilling: Comply with requirements in applicable Division 2 Sections where required by cutting and patching operations.
 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
 6. Proceed with patching after construction operations requiring cutting are complete.
- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
 2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
 3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.

- D. **Cleaning:** Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

END OF SECTION 01731

SECTION 01732 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. General provisions of the Contract including General and Special Conditions, and Division 1 Specification sections, apply to work specified in this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Removal of selected portions of exterior stair system.
 - 2. Removal of selected precast concrete wall elements.
 - 3. Salvage of existing handrails to be refinished and reused..

1.3 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Salvage: Detach items from existing construction and deliver them to Owner.
- C. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.
- D. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.4 SUBMITTALS

- A. Schedule of Selective Demolition Activities: Indicate detailed sequence of selective demolition and removal work, with starting and ending dates for each activity, interruption of utility services, use of elevator and stairs, and locations of temporary partitions and means of egress.
- B. Pre-demolition Photographs: Show existing conditions of adjoining construction and site improvements, including finish surfaces that might be misconstrued as damage caused by selective demolition operations.
- C. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

1.5 QUALITY ASSURANCE

- A. Demolition Firm Qualifications: An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this Project.
- B. Refrigerant Recovery Technician Qualifications: Certified by an EPA-approved certification program.
- C. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- D. Standards: Comply with ANSI A10.6 and NFPA 241.

1.6 PROJECT CONDITIONS

- A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
- B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
 - 1. Before selective demolition, Owner will remove the following:
 - a. All materials, equipment or furnishings stored within the building(s).
 - b. Hazardous materials which do not relate to the building envelope.
- C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- D. Hazardous Materials: Hazardous materials are present in construction to be selectively demolished. A report on the presence of hazardous materials is on file for review and use. Examine report to become aware of locations where hazardous materials are present.
 - 1. Hazardous material remediation is specified elsewhere in the Contract Documents.
- E. Storage or sale of removed items or materials on-site is not permitted.
- F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
 - 1. Maintain fire-protection facilities in service during selective demolition operations.

1.7 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped.
- B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- C. Inventory and record condition of items to be removed and reinstalled and items to be removed and salvaged.
- D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.
- E. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs.
- F. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems: Maintain services/systems indicated to remain and protect them against damage during selective demolition operations.
- B. Service/System Requirements: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.
 - 1. Arrange to shut off indicated utilities with utility companies.
 - 2. If services/systems are required to be removed, relocated, or abandoned, before proceeding with selective demolition provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
 - 3. Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing.

3.3 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

- C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.

3.4 SELECTIVE DEMOLITION

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
 - 2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 - 3. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
 - 4. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 - 5. Dispose of demolished items and materials promptly.
- B. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and reinstalled in their original locations after selective demolition operations are complete.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.6 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 01732

SECTION 01770 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and General provisions of the Contract including General, Supplemental General and Special Conditions and Division-1 Specification sections, apply to work specified in this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Inspection procedures.
 - 2. Warranties.
 - 3. Final cleaning.
- B. See Divisions 2 through 16 Sections for specific closeout and special cleaning requirements for the Work in those Sections.

1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.
 - 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
 - 2. Advise Owner of pending insurance changeover requirements.
 - 3. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 - 4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 - 5. Prepare and submit Project Record Documents, operation and maintenance manuals, Final Completion construction photographs, damage or settlement surveys, property surveys, and similar final record information.
 - 6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
 - 7. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 - 8. Complete startup testing of systems.
 - 9. Submit test/adjust/balance records.
 - 10. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 - 11. Advise Owner of changeover in heat and other utilities.
 - 12. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.

13. Complete final cleaning requirements, including touchup painting.
14. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.

1. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. Results of completed inspection will form the basis of requirements for Final Completion.

1.4 FINAL COMPLETION

A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:

1. Submit a final Application for Payment according to Division 1 Section "Payment Procedures."
2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list must state that each item has been completed or otherwise resolved for acceptance.
3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
4. Submit pest-control final inspection report and warranty.
5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.

B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.

1. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.5 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

A. Preparation: Submit three copies of list. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.

1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.

1.6 WARRANTIES

- A. Provide (3) PDF copies of all warranties on a clearly marked CD, categorized Town of East Hartford Bid Number, Architects Project Number by specification section.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
 - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e. Remove snow and ice to provide safe access to building.
 - f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - h. Sweep concrete floors broom clean in unoccupied spaces.
 - i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
 - j. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.

- k. Remove labels that are not permanent.
 - l. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - 1) Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
 - m. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - n. Replace parts subject to unusual operating conditions.
 - o. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
 - p. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
 - q. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
 - r. Leave Project clean and ready for occupancy.
- C. Pest Control: Engage an experienced, licensed exterminator to make a final inspection and rid Project of rodents, insects, and other pests. Prepare a report.
- D. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

END OF SECTION 01770

SECTION 03012 – PRECAST CONCRETE REPAIR

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract including General, Supplemental General and Special Conditions and Division-1 Specification sections, apply to work specified in this Section.

1.2 WORK INCLUDED

- A. Patch and repair existing cast in place and/or precast concrete as shown on the Drawings or as required, and as specified herein.

1.3 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 04500 – Masonry Restoration & Cleaning.
- B. Section 07190 – Water Repellents.

1.4 SYSTEM DESCRIPTION

The products must meet or exceed the following performance requirements:

<u>Physical state and appearance</u>		<u>Dry, pigmented powder and liquid</u>		
Base		Portland cement		
Powder		Acrylic polymer		
Liquid admix				
pH	Wet Mix	>12		
Liquid/dry material ratio		0.33		
Dry bulk density	ASTM C188	93 pounds per cubic feet		
Density	Hardened	118 pounds per cubic feet		
Setting time at 1/8 inch thickness	ASTM C953	Initial 15 minutes – Final 30 minutes		
Durometer hardness	ASTM D2240	70		
Water vapor transmission	ASTM E96	5.1 perms		
Accelerated weathering	ASTM G154	2000 hours – excellent – no effect		
		<u>7 Days</u>	<u>14 Days</u>	<u>28 Days</u>
Compressive strength – psi	ASTM C109	4000	5100	6200
Tensile strength – psi	ASTM C307	200	250	350

1.5 SUBMITTALS

- A. Manufacturer’s current product data bulletin.
- B. The trained applicator is to prepare a test area on the structure as a submittal for approval of proper application and adhesion.

- C. The trained applicator is to submit to the specifier a list of five projects that he has completed within the last five years, exhibiting the applicator's skills. The list must include project name, location, and description of work and completion date.

1.6 QUALITY ASSURANCE

- A. Products must be installed by a trained applicator with a minimum of five years' experience and meet the requirements of the specifier.

1.7 DELIVERY, STORAGE & HANDLING

- A. Deliver all products and all accessories in original labeled, sealed, and undamaged containers.
- B. Store all products in accordance with manufacturer's printed instructions.
- C. Handle products in accordance with manufacturer's printed instructions.

1.8 PROJECT/SITE CONDITIONS

- A. All products are to be applied at substrate and ambient temperatures of 45 degrees F or above. A minimum temperature of 45 degrees F is to be maintained 24 hours after completion of work. Protect products from weather and other damage for a period of 24 hours after installation. Do not apply products to frozen surfaces.

1.9 SCHEDULING

- A. The work requires close coordination with related sections and trades.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. The following manufacturers are approved for the project. Companies and products comparable for required repairs will be considered.
 - 1. Conproco or equal.

2.2 MATERIALS

- A. Matrix TR: A brush applied, polymer modified, cementitious repair mortar for thin repairs to natural and cast stone or equal.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Installation must be performed strictly in accordance with manufacturer's current product data bulletin.
- B. Examine substrates and conditions under which materials will be installed. Do not proceed with installation until unsatisfactory conditions are corrected.
- C. Coordinate installation with adjacent work to ensure proper sequence of construction. Protect adjacent areas and landscaping from contact due to mixing, handling, and application of materials.

3.2 SURFACE PREPARATION

- A. Remove loose and deteriorated material, laitance, dirt, dust, oil, and any surface contaminants that will inhibit proper bond.
- B. Apply Conpro Start₂ where a consolidant is of benefit.
- C. Pre-treat static cracks and voids with Matrix TR.
- D. Saturate substrate with clean water, (saturated surface dry/SSD).
- E. Mechanically prepare surface to be open-pored and textured (CP 3). Refer to ICRI Surface Preparation Guide 03732 for more information.

3.3 APPLICATION

- A. Mixing
 - 1. Mechanically mix using a low speed drill (400 – 600 rpm) and mixing paddle.
 - 2. Thoroughly shake Matrix TR admix to disperse the pigment.
 - 3. Pour all of the Matrix TR admix into a clean mixing vessel and slowly add all of the powder.
 - 4. Mix continuously for 3 minutes to a uniform, lump-free consistency.
 - 5. Allow to "breathe" for 1 minute and remix for 1 minute. This will improve workability and open time.
 - 6. Do not over mix, as this will entrain excess air.
 - 7. Do not re-temper.

B. Application

1. At the time of application, surfaces should be saturated surface dry (SSD) but hold no standing water.
2. Apply material with a stiff bristle brush or sponge float.
3. Work material into substrate to promote proper adhesion.
4. Coat individual stones (not continuous over mortar joints) a maximum thickness of 1/16 inch.
5. Finish with a sponge float or trowel.
6. Do not overwork the finish.

C. Curing

1. Protect repair from direct sunlight, wind, precipitation and frost during curing period.

3.4 CLEANING

- A. Material left over at the job site by the approved applicator must be removed.
- B. All adjacent surfaces and materials must be cleaned.
- C. Cured material must be removed mechanically.

END OF SECTION 03012

SECTION 03250 - WATERSTOP SYSTEM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and General provisions of the Contract including General, Supplemental General and Special Conditions and Division-1 Specification sections, apply to work specified in this Section.

1.2 WORK INCLUDED

- A. Provide waterproofing system to prevent the passage of liquid water and install without defects, damage or failure. Waterproofing is to be a bentonite-polymer alloy technology with all applicable accessory products.
- B. The work of this section includes, but is not limited to the furnishing and installing the following Basis-of-Design materials, per project specifications and drawings, or as directed by bentonite waterproofing manufacturer. Products of equal quality as outlined in this specification will be considered.
 - 1. Cetco® Waterstop-RX® Expanding Concrete Joint Waterstop.
 - 2. CETSEAL Sealant/Adhesive

1.3 RELATED WORK SPECIFIED ELSEWHERE

- A. Cast in Place Concrete is specified in Section 03300.

1.4 SUBMITTALS

- A. General: Prepare and submit specified submittals in accordance with General, Supplemental General and Special Conditions and Division-1 Specification sections.
- B. Product Data: Submit manufacturer's product data, with complete general and specific installation instructions, recommendations, and limitations.
- C. Product Samples: Submit representative samples of the following for approval:
 - 1. Waterstop: Cetco® Waterstop-RX-102 or approved equal.
- D. Material Certificates: Submit certificate(s) signed by manufacturer certifying materials comply with specified performance characteristics and physical requirements. Submit certification that waterproofing system and components, drainage and protection materials are supplied by a single-source manufacturer.

1.5 QUALITY ASSURANCE

- A. **Installer Qualifications:** The Installing contractor must have at least three (3) years experience in work of the type required by this section, who can comply with manufacturer's warranty requirements, and who is an Approved Applicator as determined by waterproofing/drainage system manufacturer.
- B. **Manufacturer Qualifications:** Waterproofing membranes and all accessory products are to be provided by a single manufacturer with a minimum of 30 years experience in the direct production and sales of waterproofing systems. Manufacturer must be capable of providing field service representation during construction, approving an acceptable installer, and recommending appropriate installation methods.
- C. **Pre-Installation Conference:** A pre-installation conference is to be held prior to commencement of field installation to establish procedures to maintain required working conditions and to coordinate this work with related and adjacent work. Verify that final waterproofing and waterstop details comply with waterproofing manufacturer's current installation requirements and recommendations. Pre-con meeting attendees should include representatives for the owner, architect, inspection firm, general contractor, waterproofing contractor, concrete contractor, excavating/backfill contractor, and mechanical and electrical contractors if work penetrates the waterproofing.
- D. **Materials:** Obtain waterproofing with accessory products and prefabricated drainage materials from a single manufacturer to assure material compatibility.
- E. **Independent Inspection:** Owner is to make all arrangements and payments for an independent inspection service to monitor waterproofing material installation compliance with the project contract documents and manufacturer's published literature and site specific details. Independent Inspection Firm must be an approved company participating with the waterproofing manufacturer's Certified Inspection Program. Inspection service is to produce reports and digital photographs documenting each inspection. Reports are to be made available to the Contractor, waterproofing installer, waterproofing material manufacturer, and Architect. Inspections should include substrate examination, beginning of waterproofing installation, periodic intervals, and final inspection prior to concrete or backfill placement against the waterproofing.
- F. **Water Sample Test:** Waterproofing contractor is to supply project site water sample to waterproofing membrane manufacturer, as required by manufacturer to meet warranty requirements.

1.6 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. **Delivery and Handling:** Deliver materials in factory sealed and labeled packaging. Sequence deliveries to avoid delays, while minimizing on-site storage. Handle and store following manufacturer's instructions, recommendations and material safety data sheets. Protect from construction operation related damage, as well as, damage from weather, excessive temperatures and prolonged sunlight. Remove damaged material from site and dispose of in accordance with applicable regulations.
- B. **Storage:** Do not double-stack pallets during shipping or storage. Protect waterproofing materials from moisture, excessive temperatures and sources of ignition. Provide cover, top and all sides, for materials stored on-site, allowing for adequate ventilation.

1.7 PROJECT CONDITIONS

- A. Substrate Condition: Proceed with work only when substrate construction and preparation work is complete and in condition to receive waterproofing system.
- B. Weather Conditions: Perform work only when existing and forecasted weather conditions are within the guidelines established by the manufacturer of the waterproofing materials. Do not apply waterproofing materials into standing water or over ice and snow. The General Contractor is to maintain site conditions to remove standing water from precipitation or ground water seepage in a timely manner. Should Waterstop-RX be subjected to pre-hydration as a result of prolonged immersion, inspection of the material and written acceptance from CETCO is required prior to concrete or backfill placement.

1.8 WARRANTY

- A. Waterproofing Warranty: Upon completion and acceptance of the work required by this section, the waterproofing materials manufacturer will provide a written ten (10) year warranty, covering both materials and labor, to the project owner. Issuance of Manufacturer's Cetco "HydroShield" Warranty requires the following: (1) System waterproofing products must have been provided by a single manufacturer; (2) Installation of waterproofing products and prefabricated drainage composite by Manufacturer's Approved Applicator; (3) Installation inspected by Independent Inspection Firm per Section 1.06E; (4) In Section 3 work, Waterstop-RX must be installed in all applicable horizontal and vertical cold pour concrete construction joints and around applicable penetrations. Manufacturer's warranty must be independent from any other warranties made by the Contractor under requirements of the Contract Documents and may run concurrent with the other warranties. Approved products, other than the Basis-of-Design products, must at least meet these minimum warranty standards to be acceptable.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Basis of Design: WATERSTOP-RX waterproofing membranes and applicable accessories as manufactured by Colloid Environmental Technologies Company (CETCO), 1500 West Shure Drive, Arlington Heights, Illinois 60004-1440, USA. Phone: (847)392-5800; Fax: (847)506-6195; Web-site: <http://www.cetco.com>.
- B. Equal products by other manufacturers will be deemed acceptable when approved in advance by the Architect.

2.2 MATERIALS

- A. Waterstop: Basis-of-Design - WATERSTOP-RX[®]: a hydrophilic strip to stop water infiltration through cast-in-place concrete. Products of equal quality will be considered.

- 1. WATERSTOP-RX-102:
 - Size: 3/4" x 3/8" (19 x 9 mm)
 - Roll Length: 33'-4" (10 m)
 - Cross-sectional Shape: Half-Circle
 - Unit Qty/Carton: 200 LF (60 m)

Min. Concrete Coverage: 2" (50 mm)

Typical properties:

PROPERTY	TEST METHOD	TYPICAL VALUE
Hydrostatic Pressure Resistance	Independent Test	231 Ft. (70 m)
Wet / Dry Cycling (25 Cycles @ 231 Ft.)	Independent Test	No Effect
Adhesion to Concrete Using CETSEAL	Independent Test	Excellent

- B. ACCESSORY WATERPROOFING PRODUCTS: All accessory waterproofing materials are to be provided by the bentonite waterproofing manufacturer or have manufacturer's written approval for substitution.

1. Adhesive: Basis-of-Design - CETSEAL: multipurpose single component polyether moisture cure sealant/adhesive. Products of equal quality will be considered.

PART 3 – EXECUTION

3.1 INSTALLATION, GENERAL

- A. Comply with contract documents and manufacturer's product data, including product application and installation instructions.

3.2 SUBSTRATE INSPECTION AND CONDITIONS

- A. The installer, with the Owner's Independent Inspector present, is to examine conditions of substrates and other conditions under which this section work is to be performed and notify the contractor, in writing, of circumstances detrimental to the proper completion of the work. Do not proceed with work until unsatisfactory conditions are corrected and are acceptable for compliance with manufacturer's warranty requirements. General substrate conditions acceptable for the waterproofing installation are listed below. For conditions not covered in this Section, contact the waterproofing manufacturer for guidance.
- B. CONCRETE: Reinforced structural slabs should be a minimum of 6" (150 mm) thick when placed on a working mud slab. Reinforced concrete slab(s) on compacted grade are to be a minimum of 4" (100 mm) thick. Cast-in-place concrete to receive waterproofing is to be of sound structural grade with a smooth finish, free of debris, oil, grease, laitance, dirt, dust, or other foreign matter which will impair the performance of the waterproofing and drainage system and which do not comply with manufacturer's warranty requirements. Manufacturer recommends gaining instructions from project structural engineer regarding any site specific concrete curing time requirement.
1. Form fins, ridges, and other protrusions should be level and smooth with monolithic concrete surface. Honeycombing, aggregate pockets, tie-rod holes and other voids should be completely filled with non-shrink cementitious grout and level with monolithic concrete surface.
 2. All expansion joints should receive applicable expansion joint sealant product manufactured by others prior to the installation of the Waterproofing System. Expansion joint material is the primary seal at the expansion joint and the expansion joint material manufacturer is responsible for water tightness of the joint.

3. Waterstop is to be installed in all applicable vertical and horizontal concrete construction cold pour joints and around applicable penetrations and structural members. Refer to manufacturer for further installation procedures and guidelines.

3.3 SURFACE PREPARATION

- A. Remove dirt, debris, oil, grease, cement laitance, or other foreign matter which will impair or negatively affect the performance of the waterproofing system.
- B. Protect adjacent work areas and finish surfaces from damage or contamination from waterproofing products during installation operations.

3.4 GENERAL INSTALLATION GUIDELINES

- A. Apply continuous bead of approved adhesive along the substrate where approved waterstop will be installed. Keep the nozzle tip pressed at a 45 degree during application.
- B. Remove release paper from waterstop, after applying adhesive, then press firmly into adhesive. Apply waterstop within 15 minutes of adhesive application, for best results.
- C. Waterstop is to be installed in all slab joints, around applicable slab penetrations and structural members. Refer to manufacturer for further installation procedures and guidelines.

3.5 CLEAN UP

- A. In areas where adjacent finished surfaces are soiled by work of this Section, consult manufacturer of surfaces for cleaning advice and conform to their recommendations and instructions. Remove all tools, equipment and remaining product on-site. Dispose of section work debris and damaged product following all applicable regulations.

END OF SECTION 03250

SECTION 03300 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 - RELATED DOCUMENTS

- A. Drawings and General provisions of the Contract including General, Supplemental General and Special Conditions and Division-1 Specification sections, apply to work specified in this Section.

1.2 - WORK INCLUDED

- A. Contractor is to furnish all labor, material, tools and equipment required to complete all cast-in-place concrete work as shown on the Drawings and specified herein.
- B. Apply water repellent as specified in Section 07190-Water Repellents to all poured concrete.

1.3 - RELATED WORK SPECIFIED ELSEWHERE

- A. Precast Concrete Repair is specified in Section 03012.
- B. Cast Stone is specified in Section 04720.

1.4 - QUALITY ASSURANCE

- A. The work of this Section is to conform to the current State of Connecticut Building Codes, as amended and adopted by the State of Connecticut.
- B. The work of this Section is to conform to all requirements of ACI 301, "Specifications for Structural Concrete for Buildings". Although the remainder of this Section states in condensed form, the pertinent provisions of that document, it is to be understood that it has been adopted in its entirety and may be referred to throughout the project for provisions not restated below.
- C. Concrete floor and slab construction must conform to the minimum recommendations of ACI 302.1R, "Guide for Concrete Floor and Slab Construction".
- D. The standards of the American Society for Testing and Material and the American Concrete Institute, referred to in these specifications by their serial designation and declared to be a part of these specifications, the same as if fully set forth herein.
- E. Concrete Testing Service: If required, employ, at Owner's expense, a testing laboratory acceptable to Engineer to perform material evaluation tests for concrete mix designs and to design concrete mixes, per Engineer's requirements.

1.5 - SUBMITTALS

- A. Submit separate concrete mix designs and additives for each strength class of normal weight concrete and for pumped concrete.
- B. Prepare for cold weather conditions, if required.

1.6 - STANDARDS

- A. Applicable portions of the latest edition of the following codes and standards are hereby made part of this specification in their entirety as though fully set forth herein:

ACI 211.1	Proportions for Normal, Heavyweight, and Mass Concrete
ACI 214	Recommended Practice for Evaluation of Strength Test Results of Concrete
ACI 301	Specifications for Structural Concrete for Buildings
ACI 302	Guide for Concrete Floor Slab Construction
ACI 304	Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete
ACI 304R	Placing Concrete by Pumping Methods
ACI 305R	Hot Weather Concreting
ACI 306R	Cold Weather Concreting
ACI 309	Recommended Practice for Consolidation of Concrete
ACI 315	Details and Detailing of Concrete Reinforcement
ACI 318	Building Code Requirements for Reinforced Concrete

PART 2 - PRODUCTS

2.1 Concrete Form Materials

- A. Forms for Exposed Finish Concrete: Unless otherwise indicated, construct formwork for exposed concrete surfaces with exterior-grade plywood panels, nonabsorptive, that will provide continuous, true, and smooth concrete surface. On surfaces exposed to view apply form liner of medium density overlay plywood, Class 1 or better, complying with DOC PS 1. Furnish in largest practicable sizes to minimize number of joints. Provide form material with sufficient thickness to withstand pressure of newly-placed concrete without bow or deflection.
- B. Forms for Unexposed Finish Concrete: Form concrete surfaces which will be unexposed in finished structure with plywood, lumber, metal or other acceptable material. Provide lumber dressed on at least 2 edges and one side for tight fit.
- C. Form Coatings: Provide commercial formulation form-coating compounds that will not bond with, stain nor adversely affect concrete surfaces, and will not impair subsequent treatments of concrete surfaces.

2.2 Concrete Reinforcing Materials

- A. Reinforcing Bars (Rebar): ASTM A 615-03 (S1), Grade 60, deformed, 318-14 epoxy-coated reinforcement.
- B. Steel Wire: ASTM A 82-03, plain, cold-drawn, steel.
- C. Welded Wire Fabric (WWF): ASTM A 185-03, welded steel wire fabric, epoxy-coated.
- D. Supports for Reinforcement: Provide supports for reinforcement including bolsters, chairs, spacers and other devices for spacing, supporting and fastening reinforcing bars and welded wire fabric in place. Use bar type supports complying with CRSI recommendations, unless otherwise acceptable.
 - 1. For exposed-to-view concrete surfaces, where legs of supports are in contact with forms, provide supports with legs which are plastic protected complying with CRSI Class 1 plastic protected bar supports.

2.3 Concrete Related Materials

- A. Portland Cement: ASTM C 150, Type I or II, unless otherwise acceptable to the Architect. Use one brand of cement throughout project, unless acceptable to Engineer.
- B. Normal weight aggregates: Provide aggregate from a single source for exposed concrete, such as crushed trap rock or gravel for use in pavement conforming to Connecticut State Department of Transportation, "Specifications for Roads,
- C. Water: Potable, meeting chloride ion content of maximum water soluble chloride ion (Cl-) in concrete, 0.15 percent by weight of cement.
- D. Air-Entraining Admixture: ASTM C 260.
- E. Water-Reducing Admixture: ASTM C 494, Type A and not containing more chloride ions than are present in municipal drinking water.

2.4 Concrete Proportioning and Design of Mixes

- A. Prepare design mixes for each type and strength of concrete in accordance with ACI 301 Section 3.9 "Proportioning on the Basis of Previous Field Experience or Trial Mixtures", as indicated on drawings.
- B. Use an independent testing facility acceptable to Engineer for preparing and reporting proposed mix design. The testing facility cannot be the same as used for field quality assurance testing unless otherwise acceptable to Engineer.
- C. Submit written reports to Engineer for each proposed mix for each class of concrete at least 15 days prior to start of work. Do not begin concrete production until mixes have been reviewed and approved by Engineer.
- D. Adjustment to Concrete Mixes: Mix design adjustments may be requested by Contractor when characteristics of materials, job condition, weather test results, or other circumstances warrant;

at no additional cost to Owner and as accepted by Engineer. Laboratory test data for revised mix design and strength results must be submitted to and accepted by Engineer before using in work.

- E. Use air-entraining admixture in all concrete exposed to freeze – thaw cycles. Add air-entraining admixture at manufacturer's prescribed rate to result in concrete at point of placement having air content within specified limits.
1. Concrete structures and slabs exposed to freezing and thawing or subject to hydraulic pressure: 5.5% to 7.5% for maximum 3/4" aggregate
 2. Polyethylene film.
 3. Polyethylene-coated burlap
- F. Slump Limits: The concrete is to be proportioned and produced to have a slump of 4-6" inches for walls, 3"-5" for slabs.

2.5 Concrete Mixing

- A. Ready-Mix Concrete: Comply with requirements of ASTM C 94 "Standard Specification for Ready-Mixed Concrete", and as herein specified.

Delete references for allowing additional water to be added to batch for material with insufficient slump. Addition of water to the batch will not be permitted.

During hot weather, or under conditions contributing to rapid setting of concrete, a shorter mixing time than specified in ASTM C 94 may be required.

When air temperature is between 85 degrees F (30 degrees C) and 90 degrees F (32 degrees C), reduce mixing and delivery time from 1-1/2 hours to 75 minutes, and when air temperature is above 90 degrees F (32 degrees C), reduce mixing and delivery time to 60 minutes.

2.6 Miscellaneous Related Materials

- A. Moisture Barrier: Provide tear resistant moisture barrier cover over prepared base material. Moisture barrier to consist of layers of polyethylene film, fiber reinforced paper and asphalt with a maximum permeability rating of 0.1 tested in accordance with ASTM E-96. All joints to be lapped six inches and sealed with continuous tape.
1. For exposed-to-view concrete surfaces, where legs of supports are in contact with forms, provide supports with legs which are plastic protected complying with CRSI Class 1 plastic protected bar supports.
- B. Moisture Retaining Cover: One of the following, complying with ASTM C 171.
1. Waterproof paper.
 2. Polyethylene film.
 3. Polyethylene-coated burlap.
- C. Water Repellent (refer to specification 07190-Water Repellents for requirements):
1. Apply water repellent to all new poured concrete. Provide "Saltguard WB" by Prosoco or approved equal.

2.7 Stair Metal Nosings

- A. Alumogrit cast abrasive safety tread by Wooster Products, Inc., 3" wide with crosshatch pattern for fresh concrete application. Terminate 4" max from ends.
- B. Equal products by other manufacturers will be accepted when approved in advance by the Architect.

PART 3 - EXECUTION

3.1 - FORMWORK

- A. Forms are to result in a final structure that conforms to shapes, lines, and dimensions as required by the design drawings and specifications.
- B. Forms are to be substantial and sufficiently tight to prevent leakage of mortar or concrete.
- C. Forms are to be properly braced or tied together to maintain position and shape.
- D. Formwork is to conform to ACI 347.
- E. Form ties are to be type with break off or screw-out ends and plugs which may be easily removed at least 3/4" back of surface of the concrete.
- F. Before placing reinforcing steel or concrete, the surface of forms must be covered with an acceptable form release coating material that will effectively prevent absorption of moisture, prevent bond with the concrete, and not stain the concrete surface.
- G. Excess form release coating material must not stand in puddles in the forms nor should it come in contact with hardened concrete against which fresh concrete or reinforcing steel is to be placed.
- H. Formwork for columns, walls, and other parts not supporting the weight of the concrete may be removed as soon as the concrete has hardened sufficiently to resist damage from removal operations.
- I. Forms and shoring in the formwork used to support the weight of concrete in beams, slabs and other structural members is to remain in place until the concrete has reached a minimum strength of 80% of the specified 28 day compressive strength.
- J. Install bulkheads, boxes, etc., for openings required for piping, conduits, and other equipment for other trades.
- K. Clean forms just before concrete placement. Remove all chips, wood, sawdust, dirt or other debris.

3.2 - REINFORCEMENT

- A. Reinforcing bars are to be epoxy coated ASTM A615 grade 60. All reinforcement required to be welded to structural steel must be low alloy, Grade 60, deformed steel bars conforming with ASTM A 706.

- B. Reinforcement is to be maintained free from dust, mud, rust, oil or ice/water.
- C. Fabrication and placement of reinforcing steel must be in accordance with CRSI "Manual of Standard Practice" and CRSI "Placing Reinforcing Bars."
- D. Minimum cover on reinforcement:
 - 1. Concrete cast against earth 3"
 - 2. Concrete exposed to earth or weather:
 - a. #6 and larger 2"
 - b. #5 and smaller 1 ½"
 - 3. Interior surfaces:
 - a. slabs, walls.. ¾"
 - b. beams, columns 1 ½"
- E. Splices are to be lapped 48 bar diameters and securely tied.
- F. Heat is not be used to bend reinforcing bars.
- G. Bar chairs and slab bolsters are to have plastic tips where concrete surface is exposed to view.
- H. Welded wire fabric: ASTM A185 and A82.
- I. Welded wire fabric reinforcing is to be placed at 1" clear from top of slabs on grade. Place mesh on concrete brick or chairs and raise to position in slab as concrete is placed.
- J. Welded wire fabric is to be furnished in flat sheets, not rolls.
- K. Welded wire fabric must be lapped at least 8 inches between outermost cross wires and tied at all edges.
- L. Welded wire fabric is to be fabricated and installed in accordance with "Manual of Standard Practice - Welded Wire Fabric", Wire Reinforcement Institute, Inc.
- M. At all intersecting walls and footings, provide additional horizontal "L" shaped dowels of the same size and spacing as reinforcing indicated in sections. All bars are to lap a minimum of 48 bar diameters with horizontal reinforcement.

3.3 - JOINTS AND EMBEDDED ITEMS

- A. Maximum length of pours between wall construction joints is 40 feet. Location of joints must be approved by the Architect and the Structural Engineer.
- B. Wall construction joints are to have a 2 x 4 key and horizontal wall reinforcement is to be continued across joints.
- C. Saw-cut control joints in slabs on grade at 10'-0" x 10'-0" panels, per column bay maximum.
- D. Slab control joints must be cut within 24 hours of concrete placement.
- E. Slab control joints are to be saw-cut 1/8" wide and to a depth of 1/4 the slab thickness.

- F. Welded wire fabric is to extend through slab control joints.
- G. Saw-cut control joints are to be filled with non-shrink joint sealant.
- H. Pre-molded joint filler is to be non-extruding and resilient bituminous type conforming to ASTM D1751.
- I. Anchor bolts and other embedded items are to be positioned accurately and supported against displacement.
- J. All sleeves, inserts, anchors, and embedded items required for adjoining work or for its support are to be placed prior to concreting.
- K. All contractors whose work is related to the concrete or must be supported by it are to be given ample notice and opportunity to introduce and/or furnish embedded items before the concrete is placed.
- L. Conduits and pipes of aluminum are not to be embedded in concrete.

3.4 - PRODUCTION OF CONCRETE

- A. Concrete is not to be batched, mixed and transported in accordance with ASTM C94 and ACI 304.
- B. Batching plant equipment and facilities must conform to "Certification of Ready Mixed Concrete Production Facilities" of the National Ready Mixed Concrete Association.
- C. Admixtures are to be charged into the mixer as solution and is to be measured by means of an acceptable mechanical dispensing device. The liquid is to be considered a part of the mixing water.
- D. If more than one admixture is used in the concrete, they are to be added separately.
- E. Ready-mixed concrete trucks are not to be loaded in excess of their rated capacity.

3.5 - PLACING OF CONCRETE

- A. Do not pour concrete until forms and subgrade have been thoroughly cleaned and are free of frost, mud, ice, or water.
- B. Convey concrete from truck to forms as rapidly as possible by methods which will prevent segregation or loss of ingredients. Place in forms as nearly as practicable to its final position.
- C. When placement is started, carry on as a continuous operation until the placing of a section is complete. Cold joints are not permitted.
- D. Consolidate concrete by mechanical vibration. Do not use vibrators to transport concrete in forms.
- E. No concrete is to be placed in freezing weather or when freezing weather is forecast by the Weather Bureau to occur within 36 hours, unless special measures and precautions are taken to heat the water and aggregates and to protect the concrete from rapid drying.

- F. No concrete is to be placed when the temperature is greater than 90 F. unless special measures are taken to cool the water and aggregate and to protect the concrete from rapid drying.
- G. No concrete is to be placed during rain, sleet, or snow unless protection is provided.
- H. The maximum elapsed time between introduction of water and placing is to be one hour.

3.6 - FINISHING OF FORMED SURFACES

- A. Form tie holes are to be dampened and filled with mortar.
- B. All formed surfaces exposed to view are to receive a grout rubbed finish within 24 hours of concrete placement.
- C. Tops of walls are to be floated to a texture comparable to formed surfaces.

3.7 - CONCRETE SLABS (refer to drawings for applications required):

- A. Interior slabs on grade are to be placed over a polyethylene vapor barrier, unless otherwise noted.
- B. Extreme care should be exercised during slab placement to insure that welded wire fabric is positioned as shown on the Drawings.
- C. Slabs are to be constructed in accordance with ACI 302.
- D. Interior slabs are to receive a steel trowel finish.
- E. Finishing Tolerances: Finish floor slabs to true planes within 1/16" in 10 feet, as determined by a 10 foot straightedge placed anywhere on the slab in any direction.
- F. Exterior slabs are to have a broom finish unless otherwise noted

3.8 - CURING AND PROTECTION

- A. Concrete is to be maintained above 50 degrees F. and in a moist condition for at least the first 7 days after placement.
- B. Provisions for curing of concrete must be in accordance with ACI 308.
- C. Curing compound is to be Sonneborn Kure-N-Seal or equal and must be reviewed for compatibility with floor finishes.
- D. One coat of curing compound is to be applied to all slabs as soon as concrete is firm enough to walk on.
- E. In hot weather, concrete must be protected in accordance with ACI 305.
- F. In cold weather, concrete must be protected in accordance with ACI 306.

3.9 - WATER REPELLENT (refer to specification 07190-Water Repellents for requirements):

- A. Prepare all new concrete surfaces for application.
- B. Use product in under correct conditions.
- C. Apply by either spray, brush or use roller with proper coverage per direction of manufacturer for given material being covered.

3.9 - INSPECTION AND TESTING

- A. All expenses in connection with tests specified herein are to be borne by the Owner. The testing laboratory selected to conduct the tests must be approved by the Architect, Engineer, and Owner.
- B. A minimum of three (3) test specimens are to be made for each 50 cubic yards of concrete or not less than three (3) for each day's placement. Two (2) cylinders are to be tested at seven days and one (1) at 28 days. The specimens must be carefully stored and transported so as not to damage them in any way. Records are to be kept, identifying each cylinder with the locations of placement from which test cylinders were taken.
- C. Slump tests are to be performed when each set of test cylinders are cast.
- D. If any concrete fails to develop the required 28 day strength, the Architect may order core tests at the Contractor's expense, and if the concrete in place is below strength, the Architect may order the removal and replacement of such concrete at the Contractor's expense, including any additional cost for the Architect's inspection and redesign.
- E. The testing laboratory is required to send copies of test reports to the Architect, Structural Engineer, General Contractor, and the local Building Department.

END OF SECTION 03300

SECTION 04500 MASONRY RESTORATION AND CLEANING

PART 1 - GENERAL

1.1 - RELATED DOCUMENTS

- A. Drawings and General provisions of the Contract including General, Supplemental General and Special Conditions and Division-1 Specification sections, apply to work specified in this Section.

1.2 - WORK INCLUDED

- A. The work includes furnishing all labor, materials and equipment necessary for the masonry cleaning, restoration and/or repair and replacement of exterior brick masonry on the East Elevation of the building.
- B. Sandblasting and/or use of job mixed basic acids, powdered or liquid will not be allowed under the contract, unless approved in advance by the Architect.
- C. Removal of existing hardware, bolts, anchors, clips, signs and brackets which are no longer in use, and subsequent patching of the mortar joint, or replacement of the existing brick(s) as appropriate.
- D. Brick and precast concrete mortar joint repointing (750 sq. ft.), including stairway wing walls
- E. Replacement of existing brick units on the East Elevation (100 bricks), including stairway wing walls.

1.3 - RELATED WORK SPECIFIED ELSEWHERE

- A. Precast Concrete Repair is specified in Section 03012.
- B. Cast Stone is specified in Section 04720.
- C. Water Repellent for poured concrete is specified in Section 07190.

1.4 - QUALITY ASSURANCE

- A. Product Delivery, Storage and Handling:
 - 1. Deliver, store and handle products in such a way that damage by water, breakage and inclusion of foreign matter are prevented. Maintain materials packed in original containers until ready for use. Packages of materials showing evidence of water or damage will be rejected.
- B. Submit manufacturer's printed literature demonstrating that all products used meet the requirements herein set forth.
- C. The Contractor is to arrange with the Owner for means of access to the premises and necessary utilities, spaces for storage of materials, equipment, etc.
- D. The Contractor is to be responsible for adhering to all applicable regulatory requirements set forth by State and Federal Agencies regarding the application, use and disposal of materials or waste products considered to be hazardous. This also, is to include, but not be limited to masonry cleaners and paint strippers, paint chips or residue and rinse water.

- E. The Contractor is responsible for securing the necessary permits from applicable agencies for the disposal of hazardous or regulated materials, and following procedures relating to the legal disposal of these materials.
- F. Contractors are to have a minimum of 5 years of experience in the trade in which they are to perform.

PART 2 - PRODUCTS

2.1 - GENERAL

- A. MASONRY CLEANING: Masonry cleaning and paint removal products used on existing stone and masonry are to be "Sure-Klean", as manufactured by ProsoCo, Inc., Kansas City, Kansas, or approved equal.
 - 1. Brick Cleaning: Sure-Klean Restoration Cleaner, diluted per manufacturer's printed instructions.
 - 2. Cast Stone Cleaning: Sure-Klean Manufactured Stone Cleaner, diluted per manufacturer's printed instructions.
- B. CRACK REPAIR: For repair and restoration of cracks, use products as manufactured by Jahn Series Products by Cathedral Stone Company, Inc., Washington, DC.
 - 1. For hairline crack repair use "Jahn" Injection Grout M-30.
 - 2. Equal products by other manufacturers will be acceptable when approved in advance by the Architect.
- C. The necessary water and electricity will be furnished by the Owner.

PART 3 - EXECUTION

3.1 - BRICK REPOINTING

- A. Criteria for determining areas requiring work (Advise Architect of unsuitable conditions):
 - 1. Refer to drawings and specifications for repointing requirements
 - 2. Mortar has eroded to more than 3/16" behind original mortar face.
 - 3. Mortar is substantially cracked, soft or otherwise unsound.
 - 4. Mortar is missing from joints.
- B. Surface Preparation:
 - 1. Use a small mason's chisel (no wider than 1/2 the width of the joint or special raking tool to enlarge any voids or holes. Remove the mortar to 1/2" if the joint is 1/4" or less, and 3/4" from joints greater than 1/4".
 - 2. Exercise care so as not to chip or damage surrounding bricks or stone.
 - 3. Clean joints of all dust and dirt.

4. Use of grinders to remove mortar from vertical joints will not be allowed. Grinders for horizontal joints only are acceptable.

C. Match the Existing Mortar in Color and Texture

1. Mix ingredients of Portland cement, lime and aggregate to match the existing color and texture. Mix thoroughly to ensure a uniform blend.
 - a. Sand must conform to ASTM C-144.
 - b. Lime must conform to ASTM C-207 Type S, hydrated lime for masonry purposes.
 - c. Cement must conform to ASTM C-150, Type II white non-staining Portland Cement with no more than 0.60 percent alkalis to help avoid efflorescence.
 - d. Mix proportions is to be 6 parts sand, 3 parts lime, 1 ½ parts Portland-Cement.
2. If a slightly weathered look is required to match existing texture, use a fine mist sprayed onto the joint. If "stripping" is required to match existing texture, use the end of a whisk broom or whitewash brush.
3. When pointing cracks in brick, match existing color with new mortar.

D. Applying the New Mortar

1. Wet the cleaned joints with water before applying the new mix to ensure a good bond.
2. Contractor to use a tool slightly narrower than the joint, begin packing the mortar into the deepest voids. Then fill the back of the entire joint with a 1/4" layer of mortar. Continue adding the mortar in 1/4" layers when each preceding layer is dried to thumbprint hardness.
3. When the mortar is almost flush with the wall, tool it to match the original surface profile. Do not overfill the joint so that it overlaps onto the brick.
4. Let the repointing job set up for approximately one half hour, then brush it with a wet whitewash brush to feather in the edges to the original.
5. Surface an air temperatures should be a minimum of 40o F and repointing should not occur if there is an immediate danger of freezing. Protect new work for at least 48 hours by covering with weather-resistive membrane if temperature will drop below 40o F.

E. Sample:

1. The Contractor is to create a sample area 4' wide by 4' tall, for review and approval of the Architect, prior to proceeding with the work.
2. If sample area is acceptable to the Architect, sample area will be considered part of the completed work.
3. If sample area is not acceptable, sample area will need to be re-done until accepted.

3.2 - MASONRY CLEANING

- A. Preparation - Non-masonry (glass, aluminum, etc.) surfaces are to be thoroughly tested for damages by the cleaning material. Where tests indicate need, thoroughly mask or otherwise "block-off" from direct contact with cleaning solutions.
- B. The term "clean" means to remove all organic and inorganic contaminants from the surface and pores of the masonry and stone work, returning the surfaces to their natural color. The surfaces are to be evenly cleaned with no evidence of streaking or bleaching.
- C. The facades are to be cleaned using the products described above, and carefully following the manufacturers printed instructions for application and removal, use low pressure (+/- 50 PSI for application of cleaner). Rinse treated areas from the bottom up with clear water applied at less than

600 PSI, but not such that it causes damage to existing masonry mortar with a 400 tip on the spraying equipment.

- D. The cleaning process must not affect the density, porosity, or color of the surfaces. The rinsing cycle is to flush deep into the pores of the substrate. Masonry which exhibits great porosity and severe open joints is to be repointed prior to washing to prevent saturation into the wall and probable efflorescence or other damage.
- E. The use of wire brushes, steel wool, or acids will only be permitted under special conditions approved by the Architect. The contractor is to submit for approval proprietary products and methods designed for the masonry being cleaned.
- F. The cleaning contractor must take proper protection precautions. Contractor must provide necessary coverings, wrappings, etc., to the complete satisfaction of the DEP, OSHA, and other agencies having jurisdiction.
- G. The cleaning contractor must provide safeguard to protect workmen of every trade and the general public and their property against injury of any character and magnitude by erecting barriers well outside the limits of wind-drifting and residue.
- H. Before any soaking operation is commenced, the building must be inspected for areas where leaking could occur. All obvious areas that would allow water penetration should be caulked or repointed.
- I. During the course of all water-soaking operations, one workman of supervisory status must personally view and inspect all interior areas of the building to guard against water penetration.
- J. If required, troughs are to be erected to direct the cascading water away from the building foundation to prevent leakage into the basement areas.
- K. Soaking and cleaning procedures are to be repeated until all graffiti and fungus is removed to the satisfaction of the Architect.

3.3 - GENERAL CLEAN UP

- A. Cleaning contractor will be responsible for removal and disposal of necessary masking materials following completion of cleaning operation. Windows and non-masonry areas will be deemed clean.
- B. If allowed by local authorities having jurisdiction, all residual washed from building surface is to be swept or flushed from surrounding sidewalk and service areas, leaving premises clean and neat.

END OF SECTION 04500

SECTION 04720 CAST STONE

PART 1 - GENERAL

1.1 - RELATED DOCUMENTS

- A. Drawings and General provisions of the Contract including General, Supplemental General and Special Conditions and Division-1 Specification sections, apply to work specified in this Section.

1.2 - WORK INCLUDED

- A. Furnish all labor, materials and equipment necessary for the replacement of precast stone on the East Elevation of the building as shown on the Drawings and specified herein.

1.3 - RELATED WORK SPECIFIED ELSEWHERE

- A. Precast concrete repair is specified in Section 03012.
- B. Masonry Restoration and Cleaning is specified in Section 04500.
- C. Water Repellents for poured concrete is specified in Section 07190.

1.4 - QUALITY ASSURANCE

- A. Conform to the requirements of A.C.I. 301, Specifications for Structural Concrete for Buildings, including Chapter 6, "Architectural Concrete".
- B. Conform to the requirements of Architectural Precast Association A.P.A.-101, A.P.A. Specifications for Architectural Precast Concrete and Cast Stone.
- C. Conform to the requirements of American Welding Society Standards D1.0 and D12.1.
- D. Dimensional Tolerances:
 - 1. Warpage: +1/8" per foot in 24 ft. length. At no point is the exposed surfaces of adjacent members differ from one another more than 1/8".
 - 2. Thickness: + or - 1/4".
 - 3. Squareness: + or - 1/8" per foot in 24 ft. panel diagonal.
 - 4. Location of anchors and inserts: 1/4".
 - 5. Blockouts and reinforcing: 1/4".
 - 6. Opening locations: + or - 1/8" for windows and doors, and + or - 1/4" elsewhere.

1.5 - DELIVERY AND STORAGE

- A. Store, transport, and lift members in normal position, in "A" frame cradles constructed to avoid warping and twisting. Place resilient, non-staining pads at points of support.
- B. Cover members as required prior to installation.
- C. Repair minor chipping as directed by Architect. If Architect does not approve patching, replace chipped and otherwise damaged members with new members.

1.6 - SUBMITTALS

- A. Submit product data and shop drawings including the following information:
1. Layouts of cast stone units.
 2. Large scale details.
 3. Design calculations for units which span more than 1'-4".
 4. Reinforcing details.
 5. Methods of joining and anchoring units.
 6. Details of anchorage to structure, with structural calculations.
- B. Submit samples of anchors, bolts, inserts, setting devices, reglets, and other accessories. Submit manufacturer's product data on such products.
- C. Submit as many samples of cast stone as Architect requires, showing colors and textures. Architect will work closely with supplier in describing desired characteristics. Identify all sample materials and finishes.

1.7 - WARRANTY

- A. Submit five (5) year written warranty for all work specified in this section against defects in materials and workmanship, including warping.

1.8 – MOCK-UP

- A. After sample has been approved by Architect for manufacture, the contractor is to install a mock-up for each type of cast stone to be installed, also for Architect approval. Once installation is approved this will serve as model for remainder of work.

PART 2- PRODUCTS

2.1 - MATERIALS

- A. Architectural cast stone items are detailed on Drawings.
- B. Match existing color and texture.
- C. Reinforcing steel, mesh, and other ferrous metals are to be hot-dip galvanized and must conform to the requirements of reference standards specified above. Maintain adequate coverage of concrete over metal. Do not incorporate ferrous metals which are not hot-dip galvanized or otherwise protected against corrosion in a manner approved Architect. Inadequate embedment of ferrous metals and incorporation of metals not protected against corrosion as approved by Architect will be a cause for rejection of the products.
- D. Concrete:
1. Proportion concrete using white portland-cement, A.S.T.M. C150, and aggregates, A.S.T.M. C33. Maximum size of aggregate: 3/8". Add silica fume admixture at 7-1/2% of weight of portland-cement. Add air-entraining agent, A.S.T.M. C260, to produce total air content of 14% to 18% of volume of mix volume, to resist destructive exposure. Add high-range water-reducing admixture, if

required, to produce workable concrete with 5" or less slump. Maximum water/cement ratio and water/silica fume plus cement ratio is to be 0.40.

2. Compressive strength of concrete is to be 5,000 p.s.i.
3. Maximum water absorption, tested by A.S.T.M. C642-97, is to be 5% by 48-hour cold water soak. Saturation coefficient (ratio of absorption by 24-hour submersion in room temperature water to that after 5-hour submersion in boiling water) must not exceed 0.80.
4. Add non-fading mineral pigments throughout mix. Follow manufacturer's recommended rate to achieve color selected by Architect. The following manufacturers are approved:
 - a. L.M. Scofield Co.: New York office phone is (212) 557-0406.
 - b. Frank D. Davis Co.: Eastern office phone is (301) 776-2400.
5. Do not use calcium chloride or other products containing chlorides or other halides.
6. Provide reinforcing bars as required for transport and setting. Reinforcing steel is to be epoxy-coated, and ends and other cut areas are to be coated with epoxy coating. Maintain adequate coverage of concrete over metal. Do not incorporate ferrous metals which are not epoxy-coated or hot-dip galvanized. Inadequate embedment of ferrous metals and incorporation of non-galvanized metals will be a cause for rejection of the products.
7. Drill or cast-in members for dowels and other anchors must maintain 2" or greater spacing between embedded steel reinforcing and dowels.

2.2 - DESIGN CRITERIA

- A. Prepare structural design calculations for units which span more than 1'-4". Calculations must be signed and sealed by a profession engineer, licensed to practice in the State of Connecticut.. Show locations, sizes, and types of reinforcing, connections, inserts, and fastenings. Show required fastenings, and loads at adjacent structure. List concrete mix and its strength, verified by a testing laboratory. Show clearances of concrete over embedded metals.
- B. Design of connections: Prepare structural calculations and detailed shop drawings for the anchorage of cast stone to the building structure. Be responsible for the structural adequacy of the connections. Modifications to the connections indicated on the Drawings will be subject to the approval of the Architect; make modifications as part of the work.

2.3 - FABRICATION

- A. Fabricate cast stone members according to the requirements of reference specifications listed in Part-1 above unless as follows:
 1. Top surfaces of exterior members are to have a wash for drainage.
 2. Backs and ends of sills are to have raised fillets.
 3. Bottom edges of exterior members are to have drips.
- B. Water Resistant Admixture:
 1. Permeability Reducing Admixture: "SIKA" Watertight Concrete Powder, or "KRYTON" Con-Fume, or equal products.

- C. Forms must be clean and watertight of metal, resin-coated wood or fiberglass. Wipe forms to remove excess release agent before placing concrete. Remove dirt and cut ends of tie-wire from forms before placing concrete.

- D. Cure pieces by immersing in potable water for seven (7) days, initiating cure as soon as proper according to ACI reference.

PART 3- EXECUTION

3.1 - REPLACEMENT OF CAST STONE, GENERAL

- A. Replacement of mold casted elements: Cast Stone pieces scheduled for replacement on the East Elevation of the building are shown on the drawings.
 - 1. Remove existing castings noted to be replaced.
 - 2. Cast new elements to match the pieces removed.
 - 3. Cast new elements in strict accordance with the manufacturers' instructions.
 - 4. Install new castings in the proper location. Set with methods approved by the manufacturer.

- D. Repairs and replacements are to match the existing color.

3.2 - ERECTION AND INSTALLATION

- A. Inspect adjacent conditions. Report conditions which would be detrimental to cast stone work to Architect.

- B. Erect cast stone work according to the requirements of reference standards specified in Part-1 above. Rake mortar back for insertion of backer rod and sealant.

- C. Seal joints between cast stone members and between cast stone members and adjacent work under this section, conforming to the requirements of Section 07900.

- D. Clean members thoroughly before Substantial Completion with detergent and water or other cleaning materials approved by Architect. Remove dirt and stains.

END OF SECTION 04720

SECTION 05521 - PIPE AND TUBE RAILINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and General provisions of the Contract including General, Supplemental General and Special Conditions and Division-1 Specification sections, apply to work specified in this Section.

1.2 WORK INCLUDED

- A. Furnish and Install new galvanized steel stair intermediate handrails as shown on the Drawings and specified herein.

1.3 RELATED WORK SPECIFIED ELSEWHERE

- B. Section 09911 – Exterior Painting

1.4 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Provide railings capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:
 - 1. Handrails:
 - a. Uniform load of 50 lbf/ ft. applied in any direction.
 - b. Concentrated load of 200 lbf applied in any direction.
 - c. Uniform and concentrated loads need not be assumed to act concurrently.
- B. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

1.5 SUBMITTALS

- A. Product Data: For mechanically connected railings, grout, anchoring cement, and paint products.
- B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
 - 1. For installed products indicated to comply with design loads, include structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
- C. Samples: For each exposed finish required.

- D. **Product Test Reports:** Based on evaluation of comprehensive tests performed by a qualified testing agency, according to ASTM E 894 and ASTM E 935.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. **Acceptable Manufacturers:** Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
1. **Steel Pipe and Tube Railings:**
 - a. Pisor Industries, Inc.
 - b. Sharpe Products.
 - c. Wagner, R & B, Inc.; a division of the Wagner Companies.
 - d. As approved in advance by the Architect.

2.2 METALS

- A. **Brackets, Flanges, and Anchors:** Cast or formed metal of same type of material and finish as supported rails, unless otherwise indicated.
- B. **Steel and Iron:**
1. Tubing: ASTM A 500 (cold formed).
 2. Pipe: ASTM A 53/A 53M, Type F or Type S, Grade A, Standard Weight (Schedule 40), unless another grade and weight are required by structural loads.
 3. Plates, Shapes, and Bars: ASTM A 36/A 36M.
 4. Castings: Either gray or malleable iron, unless otherwise indicated.
 - a. Gray Iron: ASTM A 48/A 48M, Class 30, unless another class is indicated or required by structural loads.
 - b. Malleable Iron: ASTM A 47/A 47M.

2.3 MISCELLANEOUS MATERIALS

- A. **Fasteners:** Provide concealed fasteners, unless unavoidable or standard for railings indicated.
1. **Steel Railings:** Plated steel fasteners complying with ASTM B 633, Class Fe/Zn 25 for electrodeposited zinc coating.
- B. **Anchors:** Provide torque-controlled expansion anchors, fabricated from corrosion-resistant materials with capability to sustain, without failure, a load equal to six times the load imposed when installed in unit masonry and equal to four times the load imposed when installed in concrete, as determined by testing per ASTM E 488.
- C. **Welding Rods and Bare Electrodes:** Select according to AWS specifications for metal alloy welded.

- D. Shop Primers: Provide primers that comply with Division 9 painting Sections.
- E. Universal Shop Primer: Fast-curing, lead- and chromate-free, universal modified-alkyd primer complying with MPI#79.
- F. Zinc-Rich Primer: Complying with SSPC-Paint 20 or SSPC-Paint 29 and compatible with topcoat.
- G. Shop Primer for Galvanized Steel: Zinc-dust, zinc-oxide primer compatible with finish paint systems indicated, and complying with SSPC-Paint 5.
- H. Grout and Anchoring Cement: Factory-packaged, nonshrink, nonmetallic grout complying with ASTM C 1107; or water-resistant, nonshrink anchoring cement; recommended by manufacturer for exterior use.

2.4 FABRICATION

- A. General: Fabricate railings to comply with design, dimensions, and details indicated, but not less than that required to support structural loads.
- B. Welded Connections: Cope components at connections to provide close fit, or use fittings designed for this purpose. Weld all around at connections, including at fittings.
- C. Form changes in direction by bending or by inserting prefabricated elbow fittings.
- D. Form curves by bending in jigs to produce uniform curvature; maintain cross section of member throughout bend without cracking or otherwise deforming exposed surfaces.
- E. Close exposed ends of railing members with prefabricated end fittings.
- F. Provide rail extensions beyond step risers as indicated.
- G. Anchors: Provide wall brackets, flanges, sleeves, miscellaneous fittings, and anchors to set rails in place.

2.5 FINISHES

- A. Steel and Iron:
 - 1. Galvanized Railings: Hot-dip galvanize exterior railings, after fabrication, to comply with ASTM A 123/A 123M. Provide hot-dip galvanized fittings, brackets, fasteners, sleeves, and other ferrous components.
 - 2. Shop-Primed Galvanized Railings: After galvanizing, clean railings, treat with metallic-phosphate process, and apply primer to comply with SSPC-PA 1.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. General: Perform cutting, drilling, and fitting required for installing railings. Set railings accurately in location, alignment, and elevation.
1. Set posts plumb within a tolerance of 1/16 inch in 3 feet.
 2. Align rails so variations from level for horizontal members and variations from parallel with rake of steps and ramps for sloping members do not exceed 1/4 inch in 12 feet.
- B. Adjusting and Cleaning:
1. Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop painting.
 2. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas and repair galvanizing to comply with ASTM A 780.

END OF SECTION 05521

SECTION 07190 - WATER REPELLENTS

PART 1 - GENERAL

1.1 - RELATED DOCUMENTS

- A. Drawings and General provisions of the Contract including General, Supplemental General and Special Conditions and Division-1 Specification sections, apply to work specified in this Section.

1.2 - WORK INCLUDED

- A. This Section includes penetrating water-repellent coatings for the following vertical and horizontal surfaces:
 - 1. New cast in place concrete.

1.3 - RELATED WORK SPECIFIED ELSEWHERE

- A. Section 03300 – Cast-In-Place Concrete

1.4 - SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Product test reports.
- C. Warranty: Sample of warranty.

1.5 - SAMPLE

- A. Contractor is to apply water repellent to a sample precast concrete Frieze replacement piece. Apply per manufacturer instructions, for approval by Architect.

1.6 - QUALITY ASSURANCE

- A. Installer Qualifications: An employer of workers trained and approved by manufacturer. The installer should be in business doing this type of work for a minimum of five (5) years
- B. Product should not be applied on a windy day. At the discretion of the Architect an additional coat of product will be applied by contractor if initial coat was applied in windy conditions.

1.7 - WARRANTY

- A. **Special Warranty:** Manufacturer's standard form in which manufacturer agree(s) to repair or replace materials that fail to maintain water repellency within five (5) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 - MANUFACTURERS

- A. For the purpose of establishing performance criteria the Contract Documents have been based upon water repellent and cleaning products manufactured by ProSoCo, Inc., Lawrence, KS 66046 , phone: 800-255-4255, email: marketing@prosoco.com. web: www.prosoco.com. Other manufacturers meeting these specifications will be considered equal.

2.2 - PENETRATING WATER REPELLENTS

- A. Provide a ready-to-use water based, VOC compliant silane/siloxane water repellent and chlorine screen for the protection of new poured concrete.
 - 1. Basis-of Design Products:
 - a. ProSoCo, Inc.; "Saltguard WB". Equal products will be considered.

PART 3 - EXECUTION

3.1 - PREPARATION

- A. All material must be clean prior to water repellent application. The term "clean" means to remove all organic and inorganic contaminants from the surface and pores of the masonry, concrete and stone work, returning the surfaces to their natural color. The surfaces must be evenly cleaned with no evidence of streaking or bleaching.
- B. The contractor is to take proper protection precautions. The contractor is to provide necessary coverings, wrappings, etc., to the complete satisfaction of the DEP, OSHA, and other agencies having jurisdiction.
- C. The contractor must provide safeguard to protect workmen of every trade and the general public and their property against injury of any character and magnitude by erecting barriers well outside the limits of wind-drifting and residue. Protect adjoining work, including sealant bond surfaces, from spillage or blow-over of water repellent. Cover live plants and grass.
- D. Applications to the vertical masonry wall with precast units already installed requires protection of windows and glass. Follow manufacturer instructions for preparation and cleaning.
- E. Clean substrate of substances that might interfere with penetration or performance of water repellents. Test for moisture content, according to water-repellent manufacturer's written instructions, to ensure that surface is dry enough.

- F. Coordination with Sealants and/or Mortar Joints: Do not apply water repellent until sealants/mortar joints adjacent to surfaces receiving water-repellent treatment have been installed and cured. Freshly repointed mortar and repaired sealant joints are to cure a minimum of 72 hours before a coating can be applied to masonry.
 - 1. Water-repellent work may precede sealant application only if sealant adhesion and compatibility have been tested and verified using substrate, water repellent, and sealant materials identical to those used in the work.
- G. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 - APPLICATION

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect the substrate before application of water repellent and to instruct Applicator on the product and application method to be used.
- B. Do not dilute or alter material. Mix well before applying.
- B. Do not apply at temperatures above 95 degrees F. Higher temperatures evaporate the water carrier, which may result in an uneven appearance.
- C. Do not apply in windy or breezy conditions.
- D. Apply per manufacturer directions.

3.3 - CLEANING

- A. Immediately clean water repellent from adjoining surfaces and surfaces soiled or damaged by water-repellent application as work progresses. Repair damage caused by water-repellent application. Comply with manufacturer's written cleaning instructions.

END OF SECTION 07190

SECTION 07621 - COPPER FLASHING AND TRIM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and General provisions of the Contract including General, Supplemental General and Special Conditions and Division-1 Specification sections, apply to work specified in this Section.

1.2 WORK INCLUDED

- A. Base Bid: Turret Roof, all other copper work shown on drawing A-1.2 Alternate work.
 - 1. New lead coated 24 ounce copper with all soldered seams and joints.
 - 2. Contractor is to match existing conditions, which must be field verified.
 - 3. Coordinate installation with new precast concrete frieze units.
 - 4. Section Includes shop and field formed copper accessories and trim, such as:
 - a. Reglets
 - b. Base Flashing and Counterflashing.

1.3 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 04500 – Masonry Restoration & Cleaning
- B. Section 04720 – Cast Stone

1.4 PERFORMANCE REQUIREMENTS

- A. Installation Requirements: Fabricator is responsible for installing system, including anchorage to substrate and necessary modifications to meet specified and drawn requirements and maintain visual design concepts in accordance with Contract Documents and following installation methods as stipulated in the "Copper in Architecture" handbook published by the Copper Development Association (CDA).
- B. Performance Requirements:
 - 1. System must accommodate movement of components without buckling, failure of joint seals, undue stress on fasteners, or other detrimental effects when subjected to seasonal temperature changes and live loads.

1.5 SUBMITTALS

- A. General: Submit the following in accordance with Conditions of Contract and Division 01 Specification Sections.
- B. Product data for flashing, metal, and accessories: Manufacturer's technical product data, installation instructions and general recommendations for each specified sheet material and fabricated product.
- C. Shop drawings showing layout, profiles, methods of joining, and anchorage details, including major counterflashings, copings, trim/fascia units, and gravel stops systems. Provide layouts at 3-inch (1:4) scale.
- D. Samples of the following flashing, sheet metal, and accessory items:
 - 1. 6-inch square samples of specified sheet materials to be exposed as finished surfaces.

1.6 QUALITY ASSURANCE

- A. Fabricator's Qualifications: Company specializing in copper flashing and trim work with three years' experience in similar size and type of installations.

- B. Installer: A firm with 3 years of successful experience with installation of copper flashing and trim work of type and scope equivalent to Work of this Section.
- C. Industry Standard: Except as otherwise shown or specified, comply with applicable recommendations and details of the "Copper in Architecture" handbook published by the Copper Development Association (CDA). Conform to dimensions and profiles shown.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Packing, Shipping, Handling, and Unloading: Protect finish metal faces.
- B. Acceptance at Site: Examine each component and accessory as delivered and confirm that material and finish is undamaged. Do not accept or install damaged materials.
- C. Storage and Protection:
 - 1. Stack pre-formed material to prevent twisting, bending, and abrasions.
 - 2. Provide ventilation.
 - 3. Prevent contact with materials which may cause discoloration or staining.

1.8 WARRANTY

- A. Warrant installed flashing, copings, gravel stops, and trim components to be free from defects in material and workmanship for period of 2 years.
- B. Include coverage against leakage and damages to finishes.

PART 2 - PRODUCTS

1.9 FLASHING AND TRIM MATERIALS

- A. 24 ounce Lead-coated copper sheet complying with ASTM B 101, temper designation H00, consisting of cold-rolled copper sheet coated both sides with lead weighing not less than 12 lbs. nor more than 15 lbs. per 100 sq. ft. of copper sheet (one half of total weight of lead applied each side)

1.10 ACCESSORIES

- A. Fasteners: Same metal as flashing/sheet metal or other non-corrosive metal as recommended by sheet manufacturer. Match finish of exposed heads with material being fastened.
- B. Bituminous Coating: SSPC - Paint 12, Cold-Applied Asphalt Mastic (Extra Thick Film), nominally free of sulfur, compounded for 15-mil dry film thickness per coat.
- C. Joint Sealant: One-part, copper compatible elastomeric polyurethane, polysulfide, butyl or silicone rubber sealant as tested by sealant manufacturer for copper substrates. Refer to Division 07.
- D. Adhesives: Type recommended by flashing sheet manufacturer for waterproof/weather-resistant seaming and adhesive application of and compatibility with flashing sheet.
- E. Roofing Felt Underlayment: Asphalt saturated felt weighing not less than 30 lbs. per 100 square feet.
- F. Paper Slip Sheet: Minimum 4-lb. red rosin-sized building paper.
- G. Reglets: Units of type and profile indicated, compatible with copper, noncorrosive.
- H. Metal Accessories: Provide cleats, straps, anchoring devices, and similar accessory units as required for installation of work, noncorrosive, size and gauge required for performance.
- I. Roofing Cement: ASTM D2822, asphaltic.

1.11 FABRICATION

- A. General Metal Fabrication: Shop-fabricate work to greatest extent possible. Comply with details shown and with applicable requirements of Copper Development Association (CDA) "Copper in Architecture" handbook and other recognized industry practices. Fabricate for waterproof and weather-resistant performance, with expansion provisions for running work, sufficient to permanently prevent leakage, damage, or deterioration of the work. Form work to fit substrates. Comply with material manufacturer instructions and recommendations for forming material. Form exposed copper work without excessive oil-canning, buckling, and tool marks, true to line and levels indicated, with exposed edges folded back to form hems.
 - 1. Fabricate to allow for adjustments in field for proper anchoring and joining.
 - 2. Form sections true to shape, accurate in size, square, free from distortion and defects.
 - 3. Cleats: Fabricate cleats of same material as sheet, inter-lockable with sheet in accordance with CDA recommendations.
 - 4. Fabricate corners from one piece with minimum 18 inch long legs; solder for rigidity if required; seal non-soldered weather joints with sealant.
- B. Seams: Fabricate nonmoving seams with flat-lock seams where possible. Tin edges and cleats to be seamed, form seams, and solder. Where soldered flat-lock seams are not possible, use soldered riveted lap seams joints for additional strength.
- C. Expansion Provisions: Where lapped or bayonet-type expansion provisions in work cannot be used or would not be sufficiently water/weatherproof, form expansion joints of intermeshing hooked flanges, not less than 1-inch deep, filled with mastic sealant (concealed within joints).
- D. Sealant Joints: Where movable, non-expansion type joints are indicated or required for proper performance of work, form metal to provide for proper installation of elastomeric sealant, in compliance with CDA standards.
- E. Separations: Provide for separation of metal from non-compatible metal or corrosive substrates by coating concealed surfaces at locations of contact, with bituminous coating or other permanent separation as recommended by manufacturer/fabricator.
- F. Solder
 - 1. Solder: ASTM Specification B 32, Composition 50/50 tin/lead; 60/40 tin/lead for lead-coated copper.
 - 2. Solder and seal metal joints except those indicated or required to be expansive type joints.
 - 3. Tin edges of copper sheets and cleats at soldered joints.
 - 4. After soldering, carefully remove flux and other residue from surfaces. Neutralize acid flux by washing with baking soda solution, and then flushing clear water rinse. Wipe and wash solder joints clean.
 - 5. Flux: Muriatic acid neutralized with zinc or approved brand of soldering flux.
- G. Seams:
 - 1. Provide following seam types unless noted or detailed otherwise.
 - 2. Flat: Flat lock.
 - 3. Corner: Double lock corner.
 - 4. Standing: Double lock standing.
- H. Copper Thickness: 24 ounce cold rolled copper.
- I. Flashing and Counter Flashing:
 - 1. Fabricate as indicated on Drawings and in accordance with the CDA "Copper in Architecture" handbook.
 - 2. Hem exposed flashings on underside 1/2 inch; miter and seam corners.
 - 3. Fabricate vertical faces with bottom edge formed outward 1/4 inch and hemmed to form drip.
 - 4. Fabricate flashings to allow toe to extend minimum 2 inches over wall surfaces.
- J. Coping: As indicated on Drawings and in accordance with the CDA "Copper in Architecture" handbook.

- K. Fascia/Gravel Stop: As indicated on Drawings and in accordance with the CDA "Copper in Architecture" handbook.
- L. Cleats:
 - 1. Install continuous cleats top and bottom for all fascia copper.
 - 2. Install minimum 12" o.c. other areas.
- M. Masonry Through-Wall Flashings: Cut new reglets, clean out joints.
 - 1. Install copper receiver counterflashing with single lock joint.
 - 2. Install copper base flashing into lock joint above and roof cleat below.
 - 3. Roof cleats spaced 12" o.c.

1.12 FINISHES

- A. Natural weathering mill finished copper.

PART 3 - EXECUTION

1.13 EXAMINATION

- A. General: Examine conditions and proceed with work when substrates are ready.
- B. Confirm that substrate system is even, smooth, sound, clean, dry, and free from defects.

1.14 INSTALLATION

- A. General: Except as otherwise indicated, comply with manufacturer's installation instructions and recommendations and with the "Copper in Architecture" handbook published by the Copper Development Association (CDA). Anchor units of work securely in place by methods indicated, providing for thermal expansion of units; conceal fasteners where possible, and set units true to line and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weatherproof.
 - 1. Install units plumb, level, square, and free from warp or twist while maintaining dimensional tolerances and alignment with surrounding construction.
 - 2. Apply asphalt mastic on copper surfaces of units in contact with dissimilar metals.
 - 3. Fit flashings tight in place. Make corners square, surfaces true and straight in planes, and lines accurate to profiles.
 - 4. Miter, lap seam and close corner joints with solder. Seal seams and joints watertight.
 - 5. Install expansion joints at frequency recommended by CDA. Do not fasten moving seams such that movement is restricted.
 - 6. Coordinate with installation of roofing system and roof accessories.
- B. Underlayment: Where installation is to be directly on cementitious or wood substrates, directly beneath copper install red rosin paper slip sheet (4 lb. min.), over layer of asphalt saturated felt (30 lb. min.).
- C. Bed flanges of work in a thick coat of bituminous roofing cement where required for waterproof performance.
- D. Install reglets to receive counterflashing in manner and by methods recommended by CDA.
- E. Counterflashing and Reglets:
 - 1. Fabricate counterflashings and reglets as 2 piece assemblies to permit installation of counterflashing after base flashings are in place.
 - 2. Fabricate reglets of same metal and thickness as counterflashings.
 - 3. Overlap roof base flashing 4 inches minimum.
 - 4. Install bottom edge tight against base flashing.
 - 5. Lap seam vertical joints 3 inches, minimum, and apply sealant.

- F. Install counterflashing in reglets by soldering in place for anchorage and filling reglet with mastic or elastomeric sealant, as indicated and depending on degree of sealant exposure.
- G. Install laminated flashing in accordance with manufacturer's recommendations. Where required, provide for movement at joints by forming loops or bellows in width of flashing. Locate cover or filler strips at joints to facilitate complete drainage of water from flashing. Seam adjacent flashing sheets with adhesive, seal and anchor edges in accordance with manufacturer's recommendations.
- H. Fabricate seams at joints between units with minimum 4-inch overlap, to form continuous, waterproof system in accordance with the "Copper in Architecture" handbook published by the Copper Development Association (CDA).
- I. Coping, and Fascia/Gravel Stops:
 - 1. Lock exterior edges over continuous cleats to secure to substrate.
 - 2. Slope 1/2 inch minimum.
 - 3. Lock interior edges to substrate with cleats spaced at 12 inch centers.
 - 4. Provide drainage system at seams to prevent water infiltration.

1.15 CLEANING

- A. Remove protective film (if any) from exposed surfaces of copper promptly upon installation. Strip with care to avoid damage to finishes.
- B. Clean exposed copper surfaces, removing substances that might cause abnormal discoloration of metal.
- C. Upon completion of each area of soldering, carefully remove flux and other residue from surfaces. Neutralize acid flux by washing with baking soda solution, and then flushing with clear water rinse. Use special care to neutralize and clean crevices.
- D. Clean exposed metal surfaces of substances that would interfere with normal oxidation and weathering.

1.16 PROTECTION

- A. Protect all surfaces until time of Substantial Completion.

END OF SECTION 07621

SECTION 07900 - SEALANTS

PART 1 - GENERAL

1.1 - RELATED DOCUMENTS

- A. Drawings and General provisions of the Contract including General, Supplemental General and Special Conditions and Division-1 Specification sections, apply to work specified in this Section.

1.2 - WORK INCLUDED

- A. The required exterior applications of sealant work include, but are not necessarily limited to the following general locations:
 - 1. Joints between cast stone pieces and between cast stone pieces and other building materials.
 - 2. Joints between brick masonry repairs and other building materials.
 - 3. Joints between lead coated copper flashings or fabrications and brick masonry or cast stone surfaces.
 - 4. Elsewhere as shown on the Drawings or as otherwise required.

1.3 - RELATED WORK SPECIFIED ELSEWHERE

- A. Masonry Restoration is specified in Section 04500.
- B. Cast Stone is specified in Section 04720.

1.4 - SUBMITTALS

- A. Submit manufacturer's descriptive literature and specification data to indicate compliance with the requirements of these specifications.
- B. Submit manufacturer's color charts for Architect's color selection(s). Multiple colors may be selected based on the building materials involved.

1.5 - DELIVERY, STORAGE AND HANDLING

- A. Do not retain at the job site material which has exceeded the shelf life recommended by its manufacturer.

1.6 - PROJECT/SITE CONDITIONS

- A. Apply sealants only to dry surfaces.
- B. Do not apply sealants when temperature is below 40 degrees F. or less than 46 degrees F. and falling.

PART 2 - PRODUCTS

2.1 - MATERIALS

- A. General Exterior Sealant: Single-component Non-sag Urethane Sealant:
1. Products: Pecora Corporation: Dynatrol I LX. Equal products by Tremco or Sonneborn may also be acceptable. Color(s): As selected by the Architect. Multiple colors may be selected.
 2. Type and Grade: S (single component) and NS (non-sag).
 3. Class: 50.
 4. Use(s) Related to Exposure: NT (non-traffic).
 5. Sealant Movement: 25/25 - % compression/% extension.
 6. Service Temperature: -20 to + 180 degrees F.
 7. Meets ASTM C920, TT-S-00230C.
- B. Joint Backing: Rod stock compatible with sealant being used, size as required.

PART 3 - EXECUTION

3.1 - INSPECTION

- A. Prior to application of sealants, the Contractor must examine the surfaces of the work to which sealants will be applied. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 - PREPARATION

- A. Bonding surfaces on both new and remedial jobs must be clean, dust and frost free. Solvent wipe the surfaces using a clean oil-free rag saturated with solvent compatible with surface being cleaned, as recommended by sealant manufacturer. Do not flood surfaces with more solvent than necessary.
- B. Do not clean surfaces with soap, detergent or any water-based cleaner. Make sure that apparently clean surfaces are not covered with a thin film of construction dust.

3.3 - APPLICATION

- A. Apply joint backing to joints open in back or over 1/2" deep. Compress backing so as to form a firm stop which will resist sealant pressure.
- B. Sealants must be installed with either a hand operated or air-operated caulking gun with sufficient pressure to completely fill voids and joints solidly. Extreme care is to be taken to prevent smearing onto adjacent surfaces. Material is only to be heated as recommended by the manufacturer. Joints are to have a neat, uniform, slightly concave appearance.
- C. All sealant work must strictly conform to the sealant manufacturer's technical instructions for surface preparation and application procedures to accomplish a weathertight seal.

- D. Tool joints within 10 minutes of application. If masking tape is used, remove tape before a surface skin begins to form.
- E. After applying the sealant and after a "skin" has formed, do not disturb the joint for 48 hours.

3.4 - REMEDIAL WORK AND LIMITATIONS

- A. Should sealant not completely fill or fully adhere to intended surfaces on first pass, remove bead and reapply. Do not apply successive beads to fill opening or obtain adhesion.
- B. If cleaning solvents stain, abrade, or otherwise damage adjacent materials or surfaces, all repair, replacement, etc. will be performed at no additional cost.

3.5 - CLEAN UP

- A. Completely remove excesses, spillage, "tails", and properly dispose of same; use solvents recommended by manufacturer of sealant being applied.
- B. Select solvents that are compatible with surfaces being cleaned.

END OF SECTION 07900

SECTION 09911 - EXTERIOR PAINTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and General provisions of the Contract including General, Supplemental General and Special Conditions and Division-1 Specification sections, apply to work specified in this Section.

1.2 WORK INCLUDED

- A. This Section includes surface preparation and the application of paint systems on the following exterior substrates:
 - 1. Steel. (Existing Steel Beams; existing wall-mounted handrails).
 - 2. New galvanized handrails. (Three (3) new intermediate handrails).
 - 3. Existing wall mounted handrails. (Existing handrails and brackets removed, painted and remounted.)
 - 4. New exterior gypsum ceiling beneath new concrete landing.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples: For each finish and for each color and texture required.
- C. Product List: Printout of current "MPI Approved Products List" for each product category specified in Part 2, with the proposed product highlighted.

1.4 QUALITY ASSURANCE

- A. MPI Standards:
 - 1. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List."
 - 2. Preparation and Workmanship: Comply with requirements in "MPI Architectural Painting Specification Manual" for products and paint systems indicated.

1.5 EXTRA MATERIALS

- A. Furnish extra materials described below that are from same production run (batch mix) as materials applied and that are packaged for storage and identified with labels describing contents.
 - 1. Quantity: Furnish an additional 5 percent, but not less than 1 gallon of each material and color applied.

PART 2 - PRODUCTS

2.1 PAINT, GENERAL

A. Material Compatibility:

1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

B. Colors: As selected by Architect from manufacturer's full range.

2.2 METAL PRIMERS

A. Alkyd Anticorrosive Metal Primer: MPI #79.

1. VOC Content: E Range of E1.

B. Cementitious Galvanized-Metal Primer: MPI #26.

1. VOC Content: E Range of E1.

2.3 EXTERIOR ALKYD PAINTS

A. Exterior Alkyd Enamel (Semigloss): MPI #94 (Gloss Level 5).

1. VOC Content: E Range of E1.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of work.
- B. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- C. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.
 1. Beginning coating application constitutes Contractor's acceptance of substrates and conditions.

3.2 PREPARATION AND APPLICATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems indicated.
- B. Clean substrates of substances that could impair bond of paints, including dirt, oil, grease, and incompatible paints and encapsulants.
 - 1. Remove incompatible primers and reprime substrate with compatible primers as required to produce paint systems indicated.
- C. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
- D. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- E. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.3 EXTERIOR PAINTING SCHEDULE

- A. Steel Substrates:
 - 1. Alkyd System: MPI EXT 5.1D.
 - a. Prime Coat: Alkyd anticorrosive metal primer.
 - b. Intermediate Coat: Exterior alkyd enamel matching topcoat.
 - c. Topcoat: Exterior alkyd enamel (semigloss).
- B. Galvanized-Metal Substrates:
 - 1. Alkyd System: MPI EXT 5.3B.
 - a. Prime Coat: Cementitious galvanized-metal primer.
 - b. Intermediate Coat: Exterior alkyd enamel matching topcoat.
 - c. Topcoat: Exterior alkyd enamel (semigloss).
- C. Exterior Gypsum Board Substrates:
 - 1. Latex System: MPI EXT 9.2A.
 - a. Prime Coat: Exterior latex matching topcoat.
 - b. Intermediate Coat: Exterior latex matching topcoat.
 - c. Topcoat: Exterior latex (semigloss).

END OF SECTION 09911

SECTION 8:
APPENDICES

- APPENDIX “A”:
Department of Public Works License &
Permit Requirements.

- APPENDIX “B”:
Connecticut Department of Labor Wage
Rate Requirements

**APPENDIX A
DEPARTMENT OF PUBLIC WORKS LICENSE
AND PERMIT REQUIREMENTS**

MARCIA A. LECLERC
MAYOR

TOWN OF EAST HARTFORD

740 Main Street
East Hartford, Connecticut 06108

Phone: 860 291-7380
Engineering@easthartfordct.gov

ENGINEERING DIVISION

LICENSE AND PERMIT REQUIREMENTS

For all work involving excavation in the Town right-of-way or on a Town-owned property, a license is required before a permit can be issued by the Engineering Division. Required documents for a license include:

1) Proof of Insurance

- a) The Certificate must contain the following language in the comments section: “The Town of East Hartford, its officials, employees, volunteers and boards are named as additional insured’s with respect to all liability arising out of the permit activities of the business”.
- b) The Certificate must have at least the following liabilities limits:
 - i) Commercial General Liability: \$1,000,000/\$2,000,000
 - ii) Business Auto Liability: \$1,000,000 combined single limit
 - iii) Worker’s Compensation: As required by State Law [Currently \$500,000/\$500,000/\$500,000]
- c) The cancellation clause must not be less than 30 days.
- d) Insurance certificates may be sent via email.
- e) Insurance review by the Town’s Risk Manager is normally complete in 1-2 business days.

2) Hold Harmless Agreement

- i) A *Hold Harmless Agreement* must be on file with the Engineering Division. (Town form supplied)

3) Bonds (Drainlayer and/or Driveway Curb & Walk)

- a) Renewal certificates are not accepted.
- b) Bonds must be on Town’s Bond Form. Original form must be filed with the Engineering Division.
- c) See the document *Instructions for Filling Out a Town of East Hartford Bond*.
- d) The bonding company must be approved to do business in the State of Connecticut.
- e) Bond review by the Town’s Corporation Counsel Office is normally complete in 1-2 business days.

The fee for an annual license is \$35.00. All licenses expire on December 31st of the year issued.

Once a license is issued, a *Permit Application Form* must be submitted. For all permits:

- a. A “Call Before You Dig” (DigSafe) number for the project.
- b. All contractors working for a utility company must provide a work order number

Permit Fee Schedule: Driveway and Sidewalk Permits - \$50.00/per location
Excavation Permits - \$50.00/per permit

Note: Any sidewalk work performed in a State road right-of-way requires a permit from the Town in addition to the DOT Encroachment Permit.

Updated 18 April 2019

J:_Administrative\Street Cut Permit\BONDS-Requirements\License and Permit Requirements - - Updated 4-18-2019 Better.docx

HOLD HARMLESS AGREEMENT

_____, in consideration of a permit
(Name of Permittee/Licensee)

or license issued to it by the Town of East Hartford on _____, hereby
(Date)

covenants and agrees to and shall, at all times, indemnify, protect and save harmless and defend the Town from and against all costs or expenses resulting from any and all losses, damages, detriment, suits, claims, demands, costs and charges, including attorneys' fees, if any, which the Town may directly or indirectly suffer, sustain or be subjected to by reason or on account of the work to be performed pursuant to such license or permit or any activities in connection with said license or permit, whether such losses and damages be suffered or sustained by the Town directly or by its employees, licensees or invitees, or be suffered or sustained by other persons or corporations who may seek to hold the Town liable therefor. The existence (or non-existence) of any insurance coverage purchased by _____

(Permittee/Licensee)

shall in no way affect the Town's rights pursuant to the terms of this agreement.

Signature of Permittee/Licensee: _____

Address: _____

Date: _____

PERMIT FEE \$50.00

PERMIT # _____



**Town of East Hartford
Department of Public Works
Engineering Division
PERMIT APPLICATION**

CHECK PERMIT TYPE: Driveway Curb/Sidewalk Excavation (Pavement Cut)
Obstruction/Encroachment \$35.00 Road Closure/Detour \$35.00 Excavation (Right-of-way)

WORK LOCATION INFORMATION

1. Location of Work: _____ End Address: _____
2. Call Before You Dig # _____ Work Order # _____
3. Start Date: _____ End Date: _____ Extended Work Date: _____

APPLICANT INFORMATION

4. Company Name: _____
5. Contractor/Owner's Name: _____
6. Address: _____
Street # & Name P.O. Box # City, State, Zip Code
7. Phone #: _____ Cell Phone #: _____ Fax #: _____
8. Email Address: _____
9. On Site Contact: _____ Cell Phone # _____

DESCRIPTION OF WORK

10. Description of Work: (Include appropriate dimensions, names of nearest cross streets, and any other necessary details.) _____

11. Attach all necessary drawings, work orders, approvals, etc.

APPLICANT SIGNATURE: _____ TITLE: _____

PRINT NAME: _____

DATE: _____

RULES PERTAINING TO EXCAVATION PERMITS:

In consideration of the grant by the Town of East Hartford of an Excavation Permit, the undersigned agrees, for itself and its agents, assigns, employees, contractors and/or subcontractors to adhere to the following rules while carrying out the work detailed in its application for such permit:

1. The road or roads on or around the work area will not be closed to traffic at any time while the work is being carried out. At least one lane, wide enough to permit the safe passage of all vehicles, shall be maintained fully open at all times.
2. Traffic on roads on or around the work areas will not be detoured prior to receipt of express permission to do so from the Director of Public Works. If the detouring of traffic becomes necessary, the undersigned will submit for approval by the Director of Public Works a detailed plan showing signs, arrangement of traffic lanes, number of flag persons to be used at the detour, the period of time during which traffic will be detoured and any other safety measures that may be ordered by the Director.
3. Any and all portions of the road(s) disturbed by the applicant and/or its agents, assigns, employees, contractor and/or sub-contractors shall be speedily restored to their original condition in accordance with the Temporary Patch detail plan or as directed by the Director of Public Works.
4. In the event the Town is required to repair, alter or improve any temporary patch or patches installed by the applicant on Town roads, the applicant will reimburse the Town for all costs of such work.
5. Applicant will comply with all laws, ordinances, rules and regulations of the Town and/or State while carrying out the work detailed in its application and permit. Applicant agrees that it will promptly comply with any and all requests and/or orders related to such work issued by the Town and will hold the Town harmless for any and all injuries, (including death), and/or damage to property related to its work which may occur while such work is being carried out for its benefit.
6. The excavation permit shall become null and void if the work for which such permit has been issued is not commenced within thirty (30) calendar days from the date of issue.
7. Any failure by the applicant, its agents, assigns, employees, contractors and/or sub-contractors to adhere to the preceding rules will result in immediate revocation of the excavation permit. In addition, such failure will result in denial by the Town of further excavation permits to the applicant.

IMPORTANT! After completing items 1-11 on front, and reading the "Rules Pertaining to Excavation Permits" above, SIGN AND DATE BELOW, MAKE CHECK PAYABLE TO "TOWN OF EAST HARTFORD", AND SUBMIT TO THE ENGINEERING DIVISION, TOWN OF EAST HARTFORD, 740 MAIN STREET, EAST HARTFORD, CT 06108.

ALL WORK REQUESTED BY THIS APPLICATION SHALL BE AUTHORIZED BY THE TOWN OF EAST HARTFORD PRIOR TO COMMENCEMENT AND SHALL BE CARRIED OUT ACCORDING TO THE REGULATIONS AND BY-LAWS OF THE TOWN OF EAST HARTFORD.

APPLICANT SIGNATURE: _____ DATE: _____

PRINT NAME: _____

(OFFICE USE ONLY)

CURRENT BOND: Driveway, Curb, & Walk Layer's Drain Layer's

CURRENT CERTIFICATE OF INSURANCE:

CURRENT LICENSE & HOLD HARMLESS AGREEMENT:

Driveway apron replacement: Yes No

8" reinforced concrete sidewalk required: Yes No

Inland Wetlands / Buffer Zone _____

Site Review _____

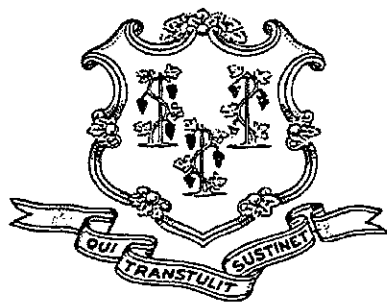
Zoning Approval (Inspections & Permits) _____

This application is hereby: APPROVED DISAPPROVED APPROVED W/CONDITIONS

BY: _____ DATE: _____ EXP. DATE: _____

CONDITIONS: _____

APPENDIX B
CONNECTICUT DEPARTMENT OF LABOR
WAGE RATE REQUIREMENTS



Opportunity * Guidance * Support



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.

CURRENT PREVAILING WAGE RATES

**IN COMPLIANCE WITH SECTION 31-53 OF THE
CONNECTICUT GENERAL STATUTES (C.G.S.)**

SHALL BE INSERTED

PRIOR TO RELEASE FOR BIDDING

ANNUAL ADJUSTMENT OF WAGE RATES

WILL BE AS REQUIRED

PER C.G.S. SECTION 31-55a

Sec. 31-53b. Construction safety and health course. New miner training program. Proof of completion required for mechanics, laborers and workers on public works projects. Enforcement. Regulations. Exceptions. (a) Each contract for a public works project entered into on or after July 1, 2009, by the state or any of its agents, or by any political subdivision of the state or any of its agents, described in subsection (g) of section 31-53, shall contain a provision requiring that each contractor furnish proof 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 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.

(b) Any person required to complete a course or program under subsection (a) of this section who has not completed the course or program shall be subject to removal from the worksite if the person does not provide documentation of having completed such course or program by the fifteenth day after the date the person is found to be in noncompliance. The Labor Commissioner or said commissioner's designee shall enforce this section.

(c) Not later than January 1, 2009, the Labor Commissioner shall adopt regulations, in accordance with the provisions of chapter 54, to implement the provisions of subsections (a) and (b) of this section. Such regulations shall require that the ten-hour construction safety and health courses required under subsection (a) of this section be conducted in accordance with federal Occupational Safety and Health Administration Training Institute standards, or in accordance with Federal Mine Safety and Health Administration Standards or in accordance with 29 CFR 1910.268, as appropriate. The Labor Commissioner shall accept as sufficient proof of compliance with the provisions of subsection (a) or (b) of this section a student course completion card issued by the federal Occupational Safety and Health Administration Training Institute, or such other proof of compliance said commissioner deems appropriate, dated no earlier than five years before the commencement date of such public works project.

(d) This section shall not apply to employees of public service companies, as defined in section 16-1, or drivers of commercial motor vehicles driving the vehicle on the public works project and delivering or picking up cargo from public works projects provided they perform no labor relating to the project other than the loading and unloading of their cargo.

(P.A. 06-175, S. 1; P.A. 08-83, S. 1.)

History: P.A. 08-83 amended Subsec. (a) by making provisions applicable to public works project contracts entered into on or after July 1, 2009, replacing provision re total cost of work with reference to Sec. 31-53(g), requiring proof in certified payroll form that new mechanic, laborer or worker has completed a 10-hour or more construction safety course and adding provision re new miner training program, amended Subsec. (b) by substituting "person" for "employee" and adding "or program", amended Subsec. (c) by adding "or in accordance with Federal Mine Safety and Health Administration Standards" and setting new deadline of January 1, 2009, deleted former Subsec. (d) re "public building", added new Subsec. (d) re exemptions for public service company employees and delivery drivers who perform no labor other than delivery and made conforming and technical changes, effective January 1, 2009.

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 ULTIMATELY ARISE CONCERNING THE CONSTRUCTION OF THE STATUTE OR THE REGULATIONS.

November 29, 2006

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.

STATUTE 31-55a

- SPECIAL NOTICE -**To: All State and Political Subdivisions, Their Agents, and Contractors****Connecticut General Statute 31-55a - Annual adjustments to wage rates by contractors doing state work.**

Each contractor that is awarded a contract on or after October 1, 2002, for (1) the construction of a state highway or bridge that falls under the provisions of section 31-54 of the general statutes, or (2) the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public works project that falls under the provisions of section 31-53 of the general statutes shall contact the Labor Commissioner on or before July first of each year, for the duration of such contract, to ascertain the prevailing rate of wages on an hourly basis and the amount of payment or contributions paid or payable on behalf of each mechanic, laborer or worker employed upon the work contracted to be done, and shall make any necessary adjustments to such prevailing rate of wages and such payment or contributions paid or payable on behalf of each such employee, effective each July first.

- The prevailing wage rates applicable to any contract or subcontract awarded on or after October 1, 2002 are subject to annual adjustments each July 1st for the duration of any project which was originally advertised for bids on or after October 1, 2002.
- Each contractor affected by the above requirement 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 Web Site. The annual adjustments will be posted on the Department of Labor Web page: www.ctdol.state.ct.us. 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.

Any questions should be directed to the Contract Compliance Unit, Wage and Workplace Standards Division, Connecticut Department of Labor, 200 Folly Brook Blvd., Wethersfield, CT 06109 at (860)263-6790.

CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION

CONTRACTORS WAGE CERTIFICATION FORM
Construction Manager at Risk/General Contractor/Prime Contractor

I, _____ of _____
Officer, Owner, Authorized Rep. Company Name

do hereby certify that the _____
Company Name

Street

City

and all of its subcontractors will pay all workers on the

Project Name and Number

Street and City

the wages as listed in the schedule of prevailing rates required for such project (a copy of which is attached hereto).

Signed

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

Notary Public

Return to:
Connecticut Department of Labor
Wage & Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

Rate Schedule Issued (Date): _____

[New] In accordance with Section 31-53b(a) of the C.G.S. each contractor shall provide a copy of the OSHA 10 Hour Construction Safety and Health Card for each employee, to be attached to the first certified payroll on the project.

PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS											Connecticut Department of Labor Wage and Workplace Standards Division 200 Folly Brook Blvd. Wethersfield, CT 06109																	
In accordance with Connecticut General Statutes, 31-53 Certified Payrolls with a statement of compliance shall be submitted monthly to the contracting agency.											WEEKLY PAYROLL																	
CONTRACTOR NAME AND ADDRESS:											SUBCONTRACTOR NAME & ADDRESS						WORKER'S COMPENSATION INSURANCE CARRIER											
PAYROLL NUMBER											Week-Ending Date						PROJECT NAME & ADDRESS						POLICY #					
																	EFFECTIVE DATE:						EXPIRATION DATE:					
PERSON/WORKER, ADDRESS and SECTION	APPR RATE %	MALE/ FEMALE AND RACE*	WORK CLASSIFICATION Trade License Type & Number - OSHA 10 Certification Number	DAY AND DATE							Total ST Hours	BASE HOURLY RATE	TYPE OF FRINGE BENEFITS Per Hour 1 through 6 (see back)	GROSS PAY FOR ALL WORK PERFORMED THIS WEEK	TOTAL DEDUCTIONS				GROSS PAY FOR THIS PREVAILING RATE JOB	CHECK # AND NET PAY								
				S	M	T	W	TH	F	S					Total O/T Hours	TOTAL FRINGE BENEFIT PLAN CASH	FICA	FEDERAL WITH- HOLDING			STATE WITH- HOLDING	LIST OTHER						
				HOURS WORKED EACH DAY																								
												\$	1. \$															
												\$	2. \$															
												\$	3. \$															
												\$	4. \$															
												\$	5. \$															
												\$	6. \$															
												\$	1. \$															
												\$	2. \$															
												\$	3. \$															
												\$	4. \$															
												\$	5. \$															
												\$	6. \$															

12/9/2013 *IF REQUIRED
WWS-CP1

*SEE REVERSE SIDE

PAGE NUMBER ___ OF

OSHA 10 ~ATTACH CARD TO 1ST CERTIFIED PAYROLL

***FRINGE BENEFITS EXPLANATION (P):**

Bona fide benefits paid to approved plans, funds or programs, except those required by Federal or State Law (unemployment tax, worker's compensation, income taxes, etc.).

Please specify the type of benefits provided:

- 1) Medical or hospital care _____
- 2) Pension or retirement _____
- 3) Life Insurance _____
- 4) Disability _____
- 5) Vacation, holiday _____
- 6) Other (please specify) _____

CERTIFIED STATEMENT OF COMPLIANCE

For the week ending date of _____,

I, _____ of _____, (hereafter known as Employer) in my capacity as _____ (title) do hereby certify and state:

Section A:

1. All persons employed on said project have been paid the full weekly wages earned by them during the week in accordance with Connecticut General Statutes, section 31-53, as amended. Further, I hereby certify and state the following:

- a) The records submitted are true and accurate;
- b) The rate of wages paid to each mechanic, laborer or workman and the amount of payment or contributions paid or payable on behalf of each such person to any employee welfare fund, as defined in Connecticut General Statutes, section 31-53 (h), are not less than the prevailing rate of wages and the amount of payment or contributions paid or payable on behalf of each such person to any employee welfare fund, as determined by the Labor Commissioner pursuant to subsection Connecticut General Statutes, section 31-53 (d), and said wages and benefits are not less than those which may also be required by contract;
- c) The Employer has complied with all of the provisions in Connecticut General Statutes, section 31-53 (and Section 31-54 if applicable for state highway construction);
- d) Each such person is covered by a worker's compensation insurance policy for the duration of his employment which proof of coverage has been provided to the contracting agency;
- e) The Employer does not receive kickbacks, which means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided directly or indirectly, to any prime contractor, prime contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a prime contractor in connection with a subcontractor relating to a prime contractor; and
- f) The Employer is aware that filing a certified payroll which he knows to be false is a class D felony for which the employer may be fined up to five thousand dollars, imprisoned for up to five years or both.

2. OSHA~The employer shall affix a copy of the construction safety course, program or training completion document to the certified payroll required to be submitted to the contracting agency for this project on which such persons name first appears.

(Signature) (Title) Submitted on (Date)

*****THIS IS A PUBLIC DOCUMENT***
DO NOT INCLUDE SOCIAL SECURITY NUMBERS**



CONNECTICUT DEPARTMENT OF LABOR

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Commission For Worker
Misclassification \(JEC\)](#)[Stop Work Orders](#)[Reports of Activities](#)[FAQs](#)[Newsroom](#)[Contact Us](#)**OCCUPATIONAL CLASSIFICATION BULLETIN**

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.

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.

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.

- **BRICKLAYERS, CEMENT MASONS, CEMENT FINISHERS, MARBLE MASONS, PLASTERERS, STONE MASONS, PLASTERERS, STONE MASONS, TERRAZZO 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.

- **CARPENTERS, MILLWRIGHTS. PILEDRIVERMEN. LATHERS. RESILEINT FLOOR LAYERS, DOCK BUILDERS, DIKERS, DIVER TENDERS**

- 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.

- **CLEANING LABORER**

- The clean up of any construction debris and the general cleaning, including sweeping, wash down, mopping, wiping of the construction facility, washing, polishing, dusting, etc., prior to the issuance of a certificate of occupancy falls under the *Labor classification*.

- **DELIVERY PERSONNEL**

- 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/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 requires either a blended rate or 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 requires either a blended rate or equal composite workforce. Insulated metal and insulated composite panels are still installed by the Ironworker.

• **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. Past practice using the applicable licensed trades, Plumber, Sheet Metal, Sprinkler Fitter, and Electrician, is not inconsistent with the Insulator classification and would be permitted.

• **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), metal bridge handrail, and decorative security fence 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 hanging+ for any and all types of building and residential work.

• **LEAD PAINT REMOVAL**

- 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 J-1,2,3,4 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. (tear-off and/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, fascia, louvers, partitions, wall panel siding, 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. Insulated metal and insulated composite panels are still installed by the Iron Worker. 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.

• **SPRINKLER FITTERS**

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

• **TILE MARBLE AND TERRAZZO FINISHERS**

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

• **TRUCK DRIVERS**

• **Definitions:**

- 1) "Site of the work" (29 Code of Federal Regulations (CFR) 5.2(l)(b) is the physical place or places where the building or work called for in the contract will remain and any other site where a significant portion of the building or work is constructed, provided that such site is established specifically for the performance of the contract or project;
 - (a) Except as provided in paragraph (l) (3) of this section, job headquarters, tool yards, batch plants, borrow pits, etc. are part of the "site of the work"; provided they are dedicated exclusively, or nearly so, to the performance of the contract or project, and provided they are adjacent to "the site of work" as defined in paragraph (e)(1) of this section;
 - (b) Not included in the "site of the work" are permanent home offices, branch plant establishments, fabrication plants, tool yards etc, of a contractor or subcontractor whose location and continuance in operation are determined wholly without regard to a particular State or political subdivision contract or uncertain and indefinite periods of time involved of a few seconds or minutes duration and where the failure to count such time is due to consideration justified by industrial realities (29 CFR 785.47)
- 2) "Engaged to wait" is waiting time that belongs to and is controlled by the employer which is an integral part of the job and is therefore compensable as hours worked. (29 CFR 785.15)
- 3) "Waiting to be engaged" is waiting time that an employee can use effectively for their own purpose and is not compensable as hours worked. (29 CFR 785.16)
- 4) "De Minimus" is a rule that recognizes that unsubstantial or insignificant periods of time which cannot as a practical administrative matter be precisely recorded for payroll purposes, may be disregarded. This rule applies only where there are uncertain and indefinite periods of time involved of a short duration and where the failure to count such time is due to consideration justified by worksite realities. For example, with respect to truck drivers on prevailing wage sites, this is typically less than 15 minutes at a time.

• **Coverage of Truck Drivers on State or Political subdivision Prevailing Wage Projects**

- Truck drivers are covered for payroll purposes under the following conditions:
 - Truck Drivers for time spent working on the site of the work.
 - Truck Drivers for time spent loading and/or unloading materials and supplies on the site of the work, if such time is not de minimus
 - Truck drivers transporting materials or supplies between a facility that is deemed part of the site of the work and the actual construction site.

- Truck drivers transporting portions of the building or work between a site established specifically for the performance of the contract or project where a significant portion of such building or work is constructed and the physical places where the building or work outlined in the contract will remain.

For example: Truck drivers delivering asphalt are covered under prevailing wage while "engaged to wait" on the site and when directly involved in the paving operation, provided the total time is not "de minimus"

- Truck Drivers **are not** covered in the following instances:
 - Material delivery truck drivers while off "the site of the work"
 - Truck Drivers traveling between a prevailing wage job and a commercial supply facility while they are off the "site of the work"
 - Truck drivers whose time spent on the "site of the work" is de minimus, such as under 15 minutes at a time, merely to drop off materials or supplies, including asphalt.

These guidelines are similar to U.S. Labor Department policies. The application of these guidelines may be subject to review based on factual considerations on a case by case basis.

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.

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*

200 Folly Brook Boulevard, Wethersfield, CT 06109 / Phone: 860-263-6000
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**Connecticut Department of Labor
Wage and Workplace Standards Division
FOOTNOTES**

- ⇒ 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.