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CONTRACT DOCUMENTS

Technical Specifications

City of Derby, CT, WPCA

Sanitary Sewer Rehabilitation Project: Phase 4

December 2021

BID DOCUMENTS



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SECTION 00100
ADVERTISEMENT FOR BIDS
CITY OF DERBY, CONNECTICUT
WATER POLLUTION CONTROL AUTHORITY
SANITARY SEWER REHABILITATION PROJECT: PHASE 4

Sealed bids for construction of Sewer Sanitary Rehabilitation Project: Phase 4 Project for the City of Derby, Connecticut acting through its Water Pollution Control Authority, will be received at 1 Elizabeth Street, City Hall, WPCA Office, Derby, Connecticut, 06418 until **10:00 a.m. prevailing time, on January 14, 2022** at which time and place said bids will be publicly opened and read aloud. Faxed or emailed bids will not be accepted. Bids submitted after this date and time will be deemed to be invalid. All bids shall be submitted at the sole cost and expense of the bidder.

The scope of work for this project includes, but is not limited to, the construction approximately 2,300 LF of 12-inch and 15-inch diameter Cured in Place Pipe (CIPP) Lining of existing sanitary sewers and related work as indicated on the contracts documents.

The Instructions to Bidders, Form of General Bid, Agreement, Plans, Specifications, Performance and Payment Bond, and other associated documents may be examined at the following locations, during normal business hours:

Engineer: Weston & Sampson Engineers, Inc., 712 Brook Street, Suite 103, Rocky Hill, CT 06067
Owner: City of Derby, 1 Elizabeth Street, City Hall, WPCA Office, Derby, Connecticut 06418
McGraw Hill Construction/Dodge Reports, 101 Corporate Place, Rocky Hill, Connecticut 06067

Bid Forms and Contract Documents will be available, physical copies or digital versions, through Advanced Reprographics, 50 Corporate Avenue, Plainville, Connecticut 06062, (860) 410-1020, and through their website at advancedrepro.net. To access the project on the website, go to the Planroom link. Bid Forms and Contract Documents may also be ordered by contacting Advanced Reprographics at the number listed above. Bidders are responsible for all printing and shipping costs, as applicable. Any request for interpretation of plans and specifications may be submitted in writing per the requirements listed in the Instructions to Bidders. Bidders can view the site of the work at their own discretion.

Attention of bidders is particularly called to the requirements as to conditions of employment observed and minimum wages rates to be paid under contract as determined by Connecticut General Statutes 31-53. Wage rates for this project are subject to the minimum wage rates as per the State of Connecticut Labor Department "Prevailing Wage Rate." The bidder is responsible for obtaining work classification not included in the Wage Decisions package included in Section 00500 – Wage Rates. The selected contractor shall furnish a performance bond and payment bond in an amount at least equal to one hundred percent (100%) of the contract price from a surety company acceptable to the Owner and licensed in the State of Connecticut as stipulated in Section 00700 GENERAL CONDITIONS of these specifications.

Bid Security in the form of a bid bond, cash, certified check, treasurer's or cashier's check payable to the Owner, is required in the amount of five percent of the bid, in accordance with

Section 00200, INSTRUCTIONS TO BIDDERS.

Attention of bidders is particularly called to the requirement that all prospective Contractors on this project shall be DAS prequalified to perform this type of work. The prospective Contractor shall submit their statement of qualifications from DAS with their bid. Any prospective Contractor who does not submit a statement of qualification from DAS with their bid shall have their bid rejected.

Attention of bidders is particularly called to the requirement for all Contractors and subcontractors to provide affirmative action to ensure equal opportunity employment as noted in the Section 00830 – City of Derby Affirmative Action Policy. The Owner is an Equal Opportunity/Affirmative Action Employer and recognizes the participation of small, disadvantaged, women or minority-owned firms or principals or parties to this Advertisement for Bids. By submission of a bid, the bidder agrees that its bid shall be good, capable of being accepted, and may not be withdrawn for a period of ninety days (90) calendar days, following the opening of the bids.

The Owner reserves the right to waive any technical defects in the bids; to reject bids that do not conform to the terms and conditions described in the specifications; to reject any, any part of, or all bids; to waive informalities or irregularities in the bidding process; and to accept that bid which the Owner deems to be in its best interest. Bidders shall certify that they do not, and will not, maintain or provide for their employees any facility that is segregated on the basis of race, color, creed, or national origin.

If the Owner determines, in its sole discretion, to proceed with the work, the successful bidder must execute and deliver an Agreement, substantially in the form included herewith, and furnish valid Certificates of Insurance and performance and payment bonds to the Owner prior to the start of any work.

It is the responsibility of the bidder to ensure that it has received any and all addenda to this Advertisement for Bids prior to submitting a bid.

This Advertisement for Bids is not binding on the Owner. The Owner reserves the right to revise or amend the plans and specifications from time to time, as it deems necessary. This Advertisement for Bids has been prepared solely to solicit bids and does not constitute a contract offer. The Owner reserves the right to amend, cancel, postpone, withdraw, or resubmit this Advertisement to Bids at any time if it is in the best interest of the Owner to do so.

**CITY OF DERBY, CONNECTICUT
BY ITS WATER POLLUTION CONTROL AUTHORITY**

Weston & Sampson Engineers, Inc.
Rocky Hill, Connecticut

SECTION 00200

INSTRUCTIONS TO BIDDERS

1. Receipt and Opening of Bids
2. Location and Work to be Done
3. Preparation of Bid
4. Modification of Bids
5. Obligation of Bidder
6. Information not Guaranteed
7. Bid Security
8. Time for Completion
9. Addenda and Interpretations
10. Bid Opening Procedure
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24. Guarantee
25. OSHA Ten Hour Training Certification
26. Efficiency Guarantee Bond
27. Taxes

1. Receipt and Opening of Bids

The City of Derby, herein called the OWNER, acting by and through its Water Pollution Control Authority will receive sealed Bids for the construction of Sanitary Sewer Rehabilitation Project – Phase 4.

Such bids addressed to the City of Derby - WPCA and endorsed Bid will be received at the location, date and time listed in Section 00100 Advertisement for Bids at which time and place said bids will be publicly opened and read aloud.

If the building at which bids are to be received is closed for any reason on the date and time that bids are due, receipt of bids by the Owner will be postponed until the next business day at the time originally stated for receipt of bids.

Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified will not be considered. By submission of a bid, the bidder agrees that this bid shall be good and may not be withdrawn for the number of days, after the opening of bids, as stipulated in the FORM OF GENERAL BID.

2. Location and Work to be Done

The location, general characteristics, and principal details of the Work are indicated on a set of 4 drawings titled " Sanitary Sewer Rehabilitation Project – Phase 4," and numbered G-1 to C-2, inclusive, and listed below.

1	--	Cover
2	G-1	Legends, Abbreviations, Notes and Drawing Index
3	C-1	Krakow Street Plans and Tables
4	C-2	Maintenance and Protection of Traffic

Additional drawings showing details in accordance with which the Work is to be done may be furnished by addendum from time to time during the bidding period by the ENGINEER, and shall then become a part of the Contract Documents.

The CONTRACTOR shall furnish all superintendence, labor, services, materials, equipment, plant, machinery, apparatus, appliances, tools, supplies, bailing, shoring, removal, and all other things necessary to do all work required for the completion of each item of the Work and as herein specified.

The Work to be done and paid for under any item shall not be limited to the exact extent mentioned or described but shall include all incidental work necessary or customarily done for the completion of that item.

3. Preparation of Bid

Each bid must be submitted on the prescribed form in Section 00410. All blank spaces for bid prices must be filled in, in ink or typewritten, in both words and figures.

Each bid must be submitted in a sealed envelope bearing on the outside the name of the bidder, its address, and endorsed with the name of the project as specified in Receipt and Opening of Bids, above.

If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope addressed as specified in Receipt and Opening of Bids, above.

4. Modification of Bids

Any bidder may modify its bid by written communication, delivered in person to the Owner, at any time prior to the scheduled closing time for receipt of bids.

The modification communication shall not reveal the bid price but shall provide the addition or subtraction or other modification so that the final prices or terms will not be known by the OWNER until the sealed bid is opened.

5. Obligation of Bidder

At the time of the opening of bids each bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the Contract Documents (including all addenda). The failure or omission of any bidder to examine any form, instrument, or document shall in no way relieve any bidder from any obligation in respect of its bid.

6. Information not Guaranteed

All information given in the Contract Documents relating to subsurface and other conditions, natural phenomena, existing pipes, and other structures is from the best sources at present available to the OWNER. All such information is furnished only for the information and convenience of bidders and is not guaranteed.

It is agreed and understood that the OWNER does not warrant or guarantee that the subsurface or other conditions, natural phenomena, existing pipes, or other structures encountered during construction will be the same as those indicated in the Contract Documents.

It is further agreed and understood that no bidder or CONTRACTOR shall use or be entitled to use any of the information made available to it or obtained in any examination made by it in any manner as a basis of or grounds for any claim or demand against the OWNER or the ENGINEER, arising from or by reason of any variance which may exist between the information made available and the actual subsurface or other conditions, natural phenomena, existing pipes or other structures actually encountered during the

construction work, except as may otherwise be expressly provided for in the Contract Documents.

7. Bid Security

Each bid must be accompanied by a certified check, a bid bond, cash, a treasurer's or cashier's check, payable to the OWNER, in the amount stated in Section 00100, ADVERTISEMENT FOR BIDS. Such deposits will be returned to all except the three lowest responsible and eligible bidders within five days, Saturdays, Sundays, and legal holidays excluded, after the opening of bids, and the remaining deposits will be returned promptly after the OWNER and the accepted bidder have executed the Contract, or if no notice of intent to award has been presented to any bidder within 30 days, Saturdays, Sundays and legal holidays excluded, after the date of the opening of bids, upon demand of the bidder at any time thereafter.

8. Time for Completion

The successful general bidder must agree to commence work on or before a date to be specified in the written "Notice to Proceed" from the OWNER and to fully complete the project within the time limit stated in Section 00410, FORM OF GENERAL BID.

9. Addenda and Interpretations

No interpretation of the meaning of the plans, specifications or other prebid documents will be made to any bidder orally, and if provided orally, shall not be relied upon by bidders unless confirmed in a written addendum. All information given to bidders other than by means of the plans, specifications, or by addenda, as described below, is given informally and shall not be used as the basis of a claim against the OWNER or the ENGINEER.

Every request for such interpretation should be in writing (typed, not handwritten) addressed to the ENGINEER: Weston & Sampson Engineers, Inc., 712 Brook Street, Suite 103, Rocky Hill, Connecticut, 06067 Attention: Mr. Robert G. Tedeschi, P.E. or sent via email (TedeschiR@wseinc.com) to be given consideration must be received at least ten (10) working days prior to the date fixed for the opening of bids.

Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the specifications which, when issued, may be viewed and downloaded as a Portable Document File (PDF) at the website provided in the Advertisement for Bid. A notification of addenda will be emailed to all prospective bidders to email addresses furnished by them for such purposes. Bidders will be required to sign for all documents, acknowledging receipt of bid documents and addenda. Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under its bid as submitted, and each bidder must confirm for itself that it has received all addenda. All addenda so issued shall become part of the Contract Documents.

10. Bid Opening Procedure

The following list of requirements shall be met by each filed bid.

Bids shall be filed at the place and before the time specified in Receipt and Opening of Bids, above.

The bid and all accompanying documents so required shall be signed by the Bidder or its authorized representative before submission.

All bidders shall include with their bids written acknowledgment of receipt of all addenda. Refer to acknowledgment form provided in Section 00410, FORM OF GENERAL BID.

The total dollar amount of each bid will be read, and the three apparent lowest bids will be selected for further consideration. These three apparent low bids will be read aloud for the benefit of the other bidders and the bid opening procedure will be closed. All those present at the bid opening may examine all bids after the bid opening and after the reading of the three apparent low bids.

Bids will be received at the WPCA Office in City Hall located at 1 Elizabeth Street, Derby, CT 06418.

11. Comparison of Bids

Bids will be compared on the basis of the quantities and unit and lump sum prices stated in the bid forms.

In the event that there is a discrepancy in Section 00410, FORM OF GENERAL BID between the lump sum or unit prices written in words and figures, the prices written in words will govern.

The OWNER agrees to examine and consider each FORM OF GENERAL BID submitted in accordance with the terms and conditions set forth herein and as set forth in Section 00410, FORM OF GENERAL BID.

12. Statutes Regulating Competitive Bidding

Any bid, which does not comply with the provisions of the State of Connecticut General Statutes, need not be accepted and the OWNER may reject every such bid.

13. Right to Reject Bid

The OWNER may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all bids, should the OWNER deem it to be in the public interest to do so.

The OWNER may also reject bids which in its sole judgment are either incomplete, conditional, obscure or not responsive or which contain additions not called for, erasures not properly initialed, alterations, or similar irregularities, and may reject bids for any other reason permitted by law, or the OWNER may waive such omissions, conditions or irregularities.

14. Ability and Experience of Bidder

All general contractors shall file with their bids a copy of their DAS certificate of eligibility showing that they are eligible to bid on projects of this category, value, and up to an aggregate limit.

No award will be made to any bidder who cannot satisfy the OWNER that it has sufficient ability and experience in this class of work and sufficient capital and plant to enable it to prosecute and complete the work successfully within the time named. The OWNER's decision or judgment on these matters will be final, conclusive, and binding to the fullest extent permitted by law.

The OWNER may make such investigations as it deems necessary, and the bidder shall furnish to the OWNER, under oath if so required, all such information and data for this purpose as the OWNER may request.

15. Conditions of Work

Each bidder must inform itself fully of the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful bidder of its obligation to furnish all material and labor necessary to carry out the provisions of its contract. Insofar as possible the CONTRACTOR, in carrying out its work, must employ such methods or means as will not cause any interruption of or interference with the work of any other contractor.

16. Security for Faithful Performance

Simultaneously with its delivery of the executed Contract, the CONTRACTOR shall furnish a surety bond or bonds as security for faithful performance of this Contract and for the payment of all persons performing labor and materials under this Contract as specified in Section 00700, GENERAL CONDITIONS included herein, each in the amount of 100 percent of its bid. The surety on such bond or bonds shall be a surety company qualified to do business under the laws of the Commonwealth and satisfactory to the OWNER. The bonds shall remain in force for one year after final acceptance of the work by the OWNER, unless the OWNER, in writing, releases the CONTRACTOR from the obligation sooner.

17. Power of Attorney

Attorneys-in-fact who sign Contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

18. Laws and Regulations

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

The bidder's attention is directed to the fact that all applicable State laws, municipal ordinances or bylaws, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the Contract throughout, and they will be deemed to be included in the Contract the same as though herein written out in full.

Attention is directed to Section 00830 Affirmative Action Policy and to other applicable sections of this specification. In the event of any conflict between provisions of law or regulation quoted or paraphrased in the Contract Documents, the actual provisions of law or regulation shall control.

The objective of preventing conflicts of interest is to ensure the integrity of the procurement process, prevent any bidder/proposer from gaining an unfair advantage, and minimize the likelihood of protests or lawsuits. Bidder is required to review the City of Derby Code of Ethics adopted December 16, 2004. Bidder shall acknowledge that they have reviewed the document in the area provided on the bid/proposal response page. The selected Bidder will also be required to complete and sign an Acknowledgement Form prior to award. The City of Derby Code of Ethics, Municipal Code Chapter 18, Section 18-5 Conflict of Interest and submit an Acknowledgement Form.

19. Liquidated Damages for Failure to Enter into Contract

The successful bidder, upon its failure or refusal to execute and deliver the Contract, Bonds and Certificates of Insurance required within 10 days after receipt of notice of the acceptance of the bid, shall, except as otherwise provided by applicable law, forfeit to the OWNER, as liquidated damages for such failure or refusal, the security deposited with its bid, provided that the amount forfeited shall not exceed the difference between its bid price and the bid price of the next lowest responsible and eligible bidder. In case of death, disability, bonafide clerical or mechanical error of a substantial nature, or other similar unforeseen circumstances affecting the bidder, its bid deposit will be returned.

20. Indeterminate Items and Estimated Quantities

The work to be done under this Contract has been divided into parts or items, if applicable, to enable each bidder to bid on different portions of the work in accordance with its estimate of their cost and so that the actual quantity of work executed under each item may be paid for at the price bid for that particular item, even though each bidder may have judged that such quantity may be greater or less than the estimated quantity stated in Section 00410, FORM OF GENERAL BID.

21. Safety and Health Regulations

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

22. Non-Discrimination Employment

Contracts for work under this proposal shall obligate the Contractor and Subcontractor not to discriminate in employment practices.

Bidders must, if requested, submit a compliance report concerning their employment practices and policies in order to maintain their eligibility to receive the award of the contract.

Bidders must, if requested, submit a list of all sub-contractors who will perform work on the project and, if requested, submit written signed statements from authorized agents of the labor pools with which they will or may deal for employees on the work, together with supporting information to the effect that said labor pools' practices and policies are in conformity with the City of Derby Affirmative Action Policy, and that said labor pools will affirmatively cooperate in or offer no hindrance to the recruitment, employment, and equal treatment of employees seeking employment and performing work under the Contract, or certification as to what efforts have been made to secure such statement when such agents or labor pools have failed to furnish same prior to the Award of the Contract.

The Contractor and all Subcontractors agree to provide equal opportunities to all qualified persons solely on the basis of job-related skills, ability and merit, and to take affirmative action to ensure that qualified applicants are employed and that employees are treated during their employment without regard to race, color, religion, gender, national origin, ancestry, age, physical disability, marital status, or mental retardation. Contractors and Subcontractors shall make good faith efforts to comply with all federal, state laws, and local policy, regarding equal opportunities in employment and affirmative action.

23. Minimum Wage Rates

In accordance with the provisions of Section 31-53 of the General Statutes of Connecticut, as amended, the following applies:

"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 of the General Statutes, shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such employees to any such employee welfare fund shall pay to each employee as part of his wages the amount of payment or contribution for his classification on each pay day."

"(g) The provisions of this section shall not apply where the total cost of all work to be performed by all contractors and subcontractors in connection with new construction of any public works project is less than four hundred thousand dollars or where the total cost of all work to be performed by all contractors and subcontractors in connection with any remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public works project is less than one hundred thousand dollars."

The Contractor shall post at conspicuous points on the site of the project a schedule showing all determined wage rates and all authorized deductions, if any, from wages to be paid.

24. Guarantee

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

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

25. OSHA Ten Hour Training Certification

Not later than thirty days after the award of this contract, the Contractor shall furnish proof to the Labor Commissioner that all employees performing manual labor on this project have completed a course of at least ten hours in duration in construction safety and health approved by OSHA.

26. Efficiency Guarantee Bond

Whenever it is written that an equipment manufacturer must have a specified period of experience with its product, equipment which does not meet the specified experience period can be considered if the equipment supplier or manufacturer is willing to provide

an “Efficiency Guarantee Bond” or cash deposit for the duration of the specified time period which will guarantee replacement of that equipment in the event of failure.

27. Taxes

The materials and supplies to be used in the Work of this Contract are exempt from the Sales and Use Tax of the State of Connecticut. Contractor shall obtain the proper certificates, maintain the necessary records and otherwise comply with the requirements of State of Connecticut.

END OF SECTION

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00400
BID FORMS

ALL BIDDERS SHALL Submit the following documents with their Bid:

1. Section 00410: Form of General Bid
2. Section 00411: Bid Bond
3. Section 00412: Bidder's Qualification Statement
4. Section 00413: Non – Collusion Affidavit
5. Section 00414: Code of Ethics Acknowledgement Form

SECTION 00410

FORM OF GENERAL BID

Proposal of _____ (hereinafter called "Bidder")*

☐ a corporation, organized and existing under the laws of the State of Connecticut

☐ a partnership

☐ a joint venture

☐ a limited liability company

☐ an individual doing business as _____

*Insert corporation, partnership, joint venture or individual as applicable.

To the City of Derby, Connecticut (hereinafter called "Owner").

The Bidder, in compliance with your invitation for bids for the **SANITARY SEWER REHABILITATION PROJECT – PHASE 4**, having examined the plans and specifications with related documents and the site of the proposed work and being familiar with all of the conditions surrounding the construction of the proposed project including the availability of materials and labor, hereby proposes to furnish all superintendence, labor, services, materials, equipment, plant, machinery, apparatus, appliances, tools, supplies, bailing, shoring, removal, and all other things necessary to construct the project in accordance with the contract documents, as prepared by Weston & Sampson Engineers, Inc., within the time set forth therein and at the prices stated below. These prices are to cover all expenses incurred in performing the work required under the contract documents, of which this proposal is a part.

The Bidder hereby agrees to commence work under this contract on or before a date to be fixed in the written "Notice to Proceed" given by the Owner to the Contractor and to fully complete all work related to the Contract within **60** calendar days of the execution of the Contract or the Notice to Proceed, whichever is later. The Bidder further agrees to pay as liquidated damages the sum of **\$500** for each consecutive calendar day thereafter during which

the work has not been fully completed, as provided in the “Liquidated Damages” paragraph of Section 00800 SUPPLEMENTARY CONDITIONS.

This bid includes addenda number: _____

The Bidder agrees to perform the work described in the specifications and shown on the plans for the following lump sum or unit prices. The unit prices shall include all labor, materials, bailing, shoring, removal, overhead, profit, insurance, and all incidental and related costs, to cover the finished work of the several kinds called for.

All entries shall be made clearly in ink or typewritten. Amounts are to be shown in both words and figures. Discrepancies between words and figures will be resolved in favor of words. Discrepancies between the indicated total of unit prices multiplied by the estimated quantities and the correct total will be resolved in favor of the correct total. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

The contract will be awarded to the lowest eligible and responsible bidder.

The Bidder understands that the Owner reserves the right to reject any or all bids and to waive any informalities in the bidding.

The Bidder agrees that this bid shall be good and may not be withdrawn for the period of time stated in Section 00100, ADVERTISEMENT FOR BIDS after the opening of bids.

Bid security is attached in the sum of five percent (5%) of the total bid in accordance with the conditions of Section 00200 INSTRUCTIONS TO BIDDERS. The bid security may become the property of the Owner in the event the contract and bond are not executed within the time set forth above.

Item No.	Brief Description, Unit or Lump Sum Price (In Both Words and Figures)	Sanitary Sewer Rehabilitation Project: Phase 4	
		Estimated Quantity ⁽¹⁾ , Unit	Total in Figures
1a	12 -inch Cured in Place Lining, Linear Feet		
		490 LF	
	Unit price, Dollars and cents (words)		
	Unit Price in Figures		
1b	15-inch Cured in Place Lining, Linear Feet		
		1,981 LF	
	Unit price, Dollars and cents (words)		
	Unit Price in Figures		
2	Manhole Cementitious Lining, Vertical Feet		
		14 VF	
	Unit price, Dollars and cents (words)		
	Unit Price in Figures		
3	CIPP Lateral Liner - First 5 Feet		
		9 EA	
	Unit price, Dollars and cents (words)		
	Unit Price in Figures		
4	Allowance for Uniform Police Officers for Traffic Control		
	Twenty Thousand Dollars and No Cents	1 Allow	\$20,000.00
	Unit price, Dollars and cents (words)		
	\$20,000.00 Unit Price in Figures		
5	Mobilization, Bonds and Insurance (not more than 5% of the total of Items 1 through 4), Lump Sum		
		1 LS	
	Unit price, Dollars and cents (words)		
	Unit Price in Figures		
		Total Bid in Figures	
Contract price for the Project Bid (Items 1 through 5) is:		Total Bid, Dollars and Cents (words)	

Within 10 business days of receipt of the written notice of acceptance of this bid, the Bidder agrees to execute the formal agreement attached in Section 00520 AGREEMENT.

The selected Contractor shall furnish a performance bond and a payment bond in an amount at least equal to one hundred percent (100%) of the contract prices in accordance with Section 00610 PERFORMANCE BOND, Section 00620 PAYMENT BOND, and as stipulated in paragraph 6.01 of Section 00700 GENERAL CONDITIONS of these specifications.

The undersigned Bidder hereby certifies that (1) it is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work; (2) that all employees to be employed at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee; and 3) that all employees to be employed in the work subject to this bid have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration.

The undersigned further certifies under the penalties of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person. The word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity which sells materials, equipment or supplies used in or for, or engages in the performance of, the same or similar construction, reconstruction, installation, demolition, maintenance or repair work or any part thereof.

The undersigned further certifies under penalty of perjury that the said undersigned is not presently debarred from doing public construction work in the State of Connecticut under applicable debarment provisions of the Connecticut General Statutes or any rule or regulations promulgated thereunder.

Respectfully submitted:

Date _____

By _____
(Signature)

(Name – Typed or Printed)

(Title)

(SEAL - if bid is by a corporation)

(Business Name)

(Federal ID Number)

(Business Address)

(City and State)

(Telephone Number)

(Fax Number)

P:\CT\Derby CT\ENG21-0831 - Phase 4 I&I Removal\4 Working Documents\4.2 Specifications\Div 0\Bid Form\00410-Bid Form-REV.docx

SECTION 00411
BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,

_____, as Principal, and
(Name of Principal)

_____, as Surety,
(Name of Surety)

are held and firmly bound unto the CITY OF DERBY WPCA, CONNECTICUT
hereinafter called the OWNER, in the penal sum of _____

_____ Dollars, (\$_____)

lawful money of the United States, for the payment of which sum well and truly to be
made, we bind ourselves, our heirs, executors, administrators, successors and assigns,
jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT

WHEREAS, the Principal has submitted the accompanying bid, dated _____, 2020, for

Sanitary Sewer Rehabilitation Project – Phase 4

IMPORTANT – Surety Companies executing BONDS, must appear on the Treasury
Department's most current list (Circular 570 as amended) and be authorized to transact
business in the of Connecticut.

NOW, THEREFORE, if the Principal shall not withdraw said bid within the period specified therein before the opening of the same, and, if no other period be specified, said bid shall remain in effect for **one hundred twenty (120) working days**, excluding Saturdays, Sundays and legal holidays, after the said opening and, if the bid is awarded to the Principal, the Principal if no other period be specified, within **ten (10) days** after the fully executed Contract is presented to him or her give both bond with good and sufficient surety or sureties, as may be required, for the faithful performance, payment and proper fulfillment of such Contract and insurance certificates as may be required by 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, the Principal shall pay the OWNER the difference between the amount specified in said bid and the amount for which the OWNER may procure the required work or supplies or both, if the latter amount be in excess of the former; or if said bid shall be rejected by the OWNER, then the above obligation shall be void and of no effect, otherwise to remain in full force and effect.

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

(Principal) (L.S.)

(Surety)

BY: _____

BIDDER'S QUALIFICATION STATEMENT

(To be submitted by the Bidder only upon the specific request of the City.)

All questions must be answered, and the data given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on a separate attached sheet. The Bidder may submit any additional information he desires.

1. Name of Bidder.
2. Permanent main office address.
3. When organized.
4. If a corporation, where incorporated.
5. How many years have you been engaged in the contracting business under your present firm or trade name?
6. Contracts on hand: (Schedule these, showing amount of each contract and the appropriate anticipated dates of completion.)
7. General character of work performed by your company.
8. Have you ever failed to complete any work awarded to you?
If so, where and why?
9. Have you ever defaulted on a contract?
If so, where and why?
10. List the more important projects recently completed by your company, stating the approximate cost for each, and the month and year completed.
11. List your major equipment available for this Contract.
12. List your experience in work similar to this project.
13. List the background and experience of the principal members of your organization, including officers.
14. List the work to be performed by subcontractors and summarize the dollar value of each subcontract.
15. Credit available.

- Date _____ this _____ day of _____, 20____.

By _____

Title _____

State of _____)
County of _____) ss.

_____ being duly sworn deposes

and says that he is _____ of _____.

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

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

My commission expires _____, 20____.

NON-COLLUSION AFFIDAVIT

State of _____)
)ss.
County of _____)

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

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

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

(3) Such Bid is genuine and is not a collusive or sham Bid,

(4) Neither the said Bidder nor any of its officers, partners, owners, agents, representatives,
employees or parties in interest, including this affiant, has in any way colluded, conspired, connived
or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham
Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from
Bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by
agreement or collusion or communication or conference with any other Bidder, firm or person to fix
the price or prices in the attached Bid or of any other Bidder, or to fix any overhead, profit or cost
element of the Bid price or the Bid price of any other Bidder or to secure through any collusion,
conspiracy, connivance or unlawful agreement any advantage against the Owner or any person
interested in the proposed Contract; and

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

(Signed) _____

(Title)

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

(Notary Public)

My commission expires _____, 20_____.

SECTION 00414
CITY OF DERBY
CODE OF ETHICS
ACKNOWLEDGEMENT FORM

I HEREBY ACKNOWLEDGE that I have received and read the following materials:

*Code of Ethics of the City of Derby

*Chapter 18, Section 18-5 of the Derby Municipal Code (Conflict of Interest)

I ACKNOWLEDGE that as a Town Official, Consultant, or other party doing business with the City, my conduct must conform to the ethical requirements specified in the Code and Town Charter (Section 18-5-Conflict of Interest).

I FURTHER ACKNOWLEDGE that I have an ongoing obligation to notify the City if I become aware of a conflict and that the Ethics Commission is available to render advisory opinions concerning potential conflicts of interest.

If you hold an elected or appointed position for the City of Derby please complete this section:

Name: _____	Phone Number: _____
Elected or Appointed Position: _____	email address: _____
Address: _____	
Date: _____	Signature: _____

If you are a vendor, supplier or consultant for the City of Derby please complete this section:

Name: _____	Phone Number: _____
Elected or Appointed Position: _____	email address: _____
Address: _____	
Date: _____	Signature: _____

SECTION 00500

STATE OF CONNECTICUT WAGE RATES

**Minimum Rates and Classifications for
Heavy/Highway Construction**

ID#: 21-29908

**Connecticut Department of Labor
Wage and Workplace Standards Division**

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

Project Number: Derby

Project Town: Derby

State#: Derby

FAP#: ENG 21-0831

Project: CIPP Lining I&I Removal (Phase 4) (Derby)

CLASSIFICATION	Hourly Rate	Benefits
1) Boilermaker	33.79	34% + 8.96
1a) Bricklayer, Cement Masons, Cement Finishers, Plasterers, Stone Masons	36.45	34.44
2) Carpenters, Piledrivermen	35.57	25.65
2a) Diver Tenders	35.57	25.65
3) Divers	44.03	25.65
03a) Millwrights	35.64	26.49
4) Painters: (Bridge Construction) Brush, Roller, Blasting (Sand, Water, etc.), Spray	54.0	22.90
4a) Painters: Brush and Roller	36.42	22.90
4b) Painters: Spray Only	39.42	22.90
4c) Painters: Steel Only	38.42	22.90
4d) Painters: Blast and Spray	39.42	22.90
4e) Painters: Tanks, Tower and Swing	38.42	22.90

Project: CIPP Lining I&I Removal (Phase 4) (Derby)

5) Electrician (Trade License required: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9)	39.6	31.21+3% of gross wage
6) Ironworkers: Ornamental, Reinforcing, Structural, and Precast Concrete Erection	38.17	38.02 + a
7) Plumbers (Trade License required: (P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2) and Pipefitters (Including HVAC Work) (Trade License required: S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4 G-1, G-2, G-8, G-9)	45.83	33.50
----LABORERS-----		
8) Group 1: Laborer (Unskilled), Common or General, acetylene burner, concrete specialist	31.5	23.25
9) Group 2: Chain saw operators, fence and guard rail erectors, pneumatic tool operators, powdermen	31.75	23.25
10) Group 3: Pipelayers	32.0	23.25
11) Group 4: Jackhammer/Pavement breaker (handheld); mason tenders (cement/concrete), catch basin builders, asphalt rakers, air track operators, block paver, curb setter and forklift operators	32.0	23.25
12) Group 5: Toxic waste removal (non-mechanical systems)	33.5	23.25
13) Group 6: Blasters	33.25	23.25
Group 7: Asbestos/lead removal, non-mechanical systems (does not include leaded joint pipe)	32.5	23.25
Group 8: Traffic control signalmen	18.0	23.25
Group 9: Hydraulic Drills	32.25	23.25
----LABORERS (TUNNEL CONSTRUCTION, FREE AIR). Shield Drive and Liner Plate Tunnels in Free Air.----		
13a) Miners, Motormen, Mucking Machine Operators, Nozzle Men, Grout Men, Shaft & Tunnel Steel & Rodmen, Shield & Erector, Arm Operator, Cable Tenders	33.73	23.25 + a
13b) Brakemen, Trackmen	32.76	23.25 + a
----CLEANING, CONCRETE AND CAULKING TUNNEL----		

14) Concrete Workers, Form Movers, and Strippers	32.76	23.25 + a
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15) Form Erectors	33.09	23.25 + a
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----ROCK SHAFT LINING, CONCRETE, LINING OF SAME AND TUNNEL IN FREE AIR:----

16) Brakemen, Trackmen, Tunnel Laborers, Shaft Laborers	32.76	23.25 + a
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17) Laborers Topside, Cage Tenders, Bellman	32.65	23.25 + a
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18) Miners	33.73	23.25 + a
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----TUNNELS, CAISSON AND CYLINDER WORK IN COMPRESSED AIR: ----

18a) Blaster	40.22	23.25 + a
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19) Brakemen, Trackmen, Groutman, Laborers, Outside Lock Tender, Gauge Tenders	40.02	23.25 + a
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20) Change House Attendants, Powder Watchmen, Top on Iron Bolts	38.04	23.25 + a
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21) Mucking Machine Operator	40.81	23.25 + a
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----TRUCK DRIVERS----(*see note below)

Two axle trucks	30.16	27.16 + a
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Three axle trucks; two axle ready mix	30.27	27.16 + a
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Three axle ready mix	30.33	27.16 + a
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Four axle trucks, heavy duty trailer (up to 40 tons)	30.39	27.16 + a
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Four axle ready-mix	30.44	27.16 + a
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Heavy duty trailer (40 tons and over)	30.66	27.16 + a
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Specialized earth moving equipment other than conventional type on-the road trucks and semi-trailer (including Euclids)	30.44	27.16 + a
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----POWER EQUIPMENT OPERATORS----

Group 1: Crane handling or erecting structural steel or stone, hoisting engineer (2 drums or over), front end loader (7 cubic yards or over), Work Boat 26 ft. & Over, Tunnel Boring Machines. (Trade License Required)	43.88	25.80 + a
Group 2: Cranes (100 ton rate capacity and over); Excavator over 2 cubic yards; Piledriver (\$3.00 premium when operator controls hammer); Bauer Drill/Caisson. (Trade License Required)	43.53	25.80 + a
Group 3: Excavator/Backhoe under 2 cubic yards; Cranes (under 100 ton rated capacity), Gradall; Master Mechanic; Hoisting Engineer (all types of equipment where a drum and cable are used to hoist or drag material regardless of motive power of operation), Rubber Tire Excavator (Drott-1085 or similar); Grader Operator; Bulldozer Fine Grade (slopes, shaping, laser or GPS, etc.). (Trade License Required)	42.72	25.80 + a
Group 4: Trenching Machines; Lighter Derrick; Concrete Finishing Machine; CMI Machine or Similar; Koehring Loader (Skooper)	42.3	25.80 + a
Group 5: Specialty Railroad Equipment; Asphalt Paver; Asphalt Spreader; Asphalt Reclaiming Machine; Line Grinder; Concrete Pumps; Drills with Self Contained Power Units; Boring Machine; Post Hole Digger; Auger; Pounder; Well Digger; Milling Machine (over 24	41.65	25.80 + a
Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller.	41.65	25.80 + a
Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	41.31	25.80 + a
Group 7: Asphalt Roller; Concrete Saws and Cutters (ride on types); Vermeer Concrete Cutter; Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24	40.94	25.80 + a
Group 8: Mechanic, Grease Truck Operator, Hydroblaster, Barrier Mover, Power Stone Spreader; Welder; Work Boat under 26 ft.; Transfer Machine.	40.51	25.80 + a
Group 9: Front End Loader (under 3 cubic yards), Skid Steer Loader regardless of attachments (Bobcat or Similar); Fork Lift, Power Chipper; Landscape Equipment (including hydroseeder).	40.04	25.80 + a
Group 10: Vibratory Hammer, Ice Machine, Diesel and Air Hammer, etc.	37.81	25.80 + a
Group 11: Conveyor, Earth Roller; Power Pavement Breaker (whiphammer), Robot Demolition Equipment.	37.81	25.80 + a
Group 12: Wellpoint Operator.	37.74	25.80 + a

Group 13: Compressor Battery Operator.	37.11	25.80 + a
Group 14: Elevator Operator; Tow Motor Operator (Solid Tire No Rough Terrain).	35.87	25.80 + a
Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	35.43	25.80 + a
Group 16: Maintenance Engineer/Oiler	34.72	25.80 + a
Group 17: Portable asphalt plant operator; portable crusher plant operator; portable concrete plant operator.	39.42	25.80 + a
Group 18: Power Safety Boat; Vacuum Truck; Zim Mixer; Sweeper; (minimum for any job requiring CDL license).	36.77	25.80 + a

****NOTE: SEE BELOW**

----LINE CONSTRUCTION----(Railroad Construction and Maintenance)---

-

20) Lineman, Cable Splicer, Technician	48.19	6.5% + 22.00
21) Heavy Equipment Operator	42.26	6.5% + 19.88
22) Equipment Operator, Tractor Trailer Driver, Material Men	40.96	6.5% + 19.21
23) Driver Groundmen	26.5	6.5% + 9.00
23a) Truck Driver	40.96	6.5% + 17.76

----LINE CONSTRUCTION----

24) Driver Groundmen	30.92	6.5% + 9.70
25) Groundmen	22.67	6.5% + 6.20
26) Heavy Equipment Operators	37.1	6.5% + 10.70
27) Linemen, Cable Splicers, Dynamite Men	41.22	6.5% + 12.20

28) Material Men, Tractor Trailer Drivers, Equipment Operators	35.04	6.5% + 10.45
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Project: CIPP Lining I&I Removal (Phase 4) (Derby)

Welders: Rate for craft to which welding is incidental.

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

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

ALL Cranes: When crane operator is operating equipment that requires a fully licensed crane operator to operate he receives an extra \$4.00 premium in addition to the hourly wage rate and benefit contributions:

- 1) Crane handling or erecting structural steel or stone; hoisting engineer (2 drums or over)***
- 2) Cranes (100 ton rate capacity and over) Bauer Drill/Caisson***
- 3) Cranes (under 100 ton rated capacity)***

Crane with 150 ft. boom (including jib) - \$1.50 extra

Crane with 200 ft. boom (including jib) - \$2.50 extra

Crane with 250 ft. boom (including jib) - \$5.00 extra

Crane with 300 ft. boom (including jib) - \$7.00 extra

Crane with 400 ft. boom (including jib) - \$10.00 extra

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

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

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

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

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

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

The annual adjustments will be posted on the Department of Labor's Web page: www.ct.gov/dol. For those without internet access, please contact the division listed below.

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

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

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

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

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

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

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

As of: December 21, 2021

Project: CIPP Lining I&I Removal (Phase 4) (Derby)

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

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

Important Information:

For use with Building, Heavy/Highway, and Residential

Welders: Rate for craft to which welding is incidental.

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

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

ALL Cranes: When crane operator is operating equipment that requires a fully licensed crane operator to operate he receives an extra \$4.00 premium in addition to the hourly wage rate and benefit contributions:

- 1) Crane handling or erecting structural steel or stone; hoisting engineer (2 drums or over)
- 2) Cranes (100 ton rate capacity and over) Bauer Drill/Caisson
- 3) Cranes (under 100 ton rated capacity)

Crane with boom including jib, 150 feet - \$1.50 extra.

Crane with boom including jib, 200 feet - \$2.50 extra.

Crane with boom including jib, 250 feet - \$5.00 extra.

Crane with boom including jib, 300 feet - \$7.00 extra.

Crane with boom including jib, 400 feet - \$10.00 extra.

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

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

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

- The Prevailing wage rates applicable to this project are subject to annual adjustments each July 1st for the duration of the project.
- Each contractor shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.
- It is the contractor's responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's website.
- The annual adjustments will be posted on the Department of Labor's Web page: www.ctdol.state.ct.us.
- 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.

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

- All Persons who perform work ON SITE must be paid prevailing wage for the appropriate mechanic, laborer, or worker classification.
- All certified payrolls must list the hours worked and wages paid to All Persons who perform work ON SITE regardless of their ownership i.e.: (Owners, Corporate Officers, LLC Members, Independent Contractors, et. al)
- Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

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

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



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.

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.

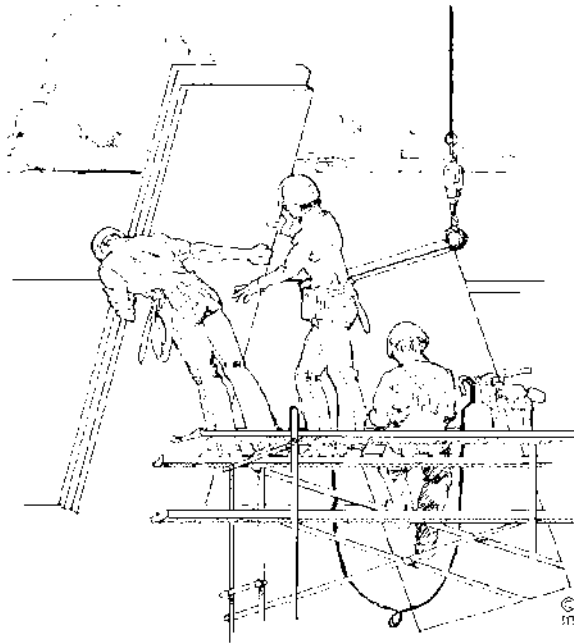
~NOTICE~

TO ALL CONTRACTING AGENCIES

Please be advised that Connecticut General Statutes Section 31-53, requires the contracting agency to certify to the Department of Labor, the total dollar amount of work to be done in connection with such public works project, regardless of whether such project consists of one or more contracts.

Please find the attached “Contracting Agency Certification Form” to be completed and returned to the Department of Labor, Wage and Workplace Standards Division, Public Contract Compliance Unit.

 Inquiries can be directed to (860)263-6543.



CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION
CONTRACT COMPLIANCE UNIT

CONTRACTING AGENCY CERTIFICATION FORM

I, _____, acting in my official capacity as _____,
authorized representative title

for _____, located at _____,
contracting agency address

do hereby certify that the total dollar amount of work to be done in connection with

_____, located at _____,
project name and number address

shall be \$_____, which includes all work, regardless of whether such project
consists of one or more contracts.

CONTRACTOR INFORMATION

Name: _____

Address: _____

Authorized Representative: _____

Approximate Starting Date: _____

Approximate Completion Date: _____

Signature

Date

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

Date Issued: _____

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.

In accordance with Connecticut General Statutes, 31-53 Certified Payrolls with a statement of compliance shall be submitted monthly to the contracting agency.												PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS										Connecticut Department of Labor Wage and Workplace Standards Division 200 Folly Brook Blvd. Wethersfield, CT 06109							
CONTRACTOR NAME AND ADDRESS:												SUBCONTRACTOR NAME & ADDRESS						WORKER'S COMPENSATION INSURANCE CARRIER POLICY # EFFECTIVE DATE: EXPIRATION DATE:											
PAYROLL NUMBER		Week-Ending Date		PROJECT NAME & ADDRESS																									
PERSON/WORKER, ADDRESS and SECTION		APPR RATE %	MALE/ FEMALE AND RACE*	WORK CLASSIFICATION		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	FICA	FEDERAL WITH- HOLDING	STATE WITH- HOLDING			LIST OTHER							
				Trade License Type & Number - OSHA 10 Certification Number		HOURS WORKED EACH DAY						TOTAL FRINGE BENEFIT PLAN CASH																	
												\$ Base Rate	1. \$ 2. \$ 3. \$																
												\$ Cash Fringe	4. \$ 5. \$ 6. \$																
												\$ Base Rate	1. \$ 2. \$ 3. \$																
												\$ Cash Fringe	4. \$ 5. \$ 6. \$																
												\$ Base Rate	1. \$ 2. \$ 3. \$																
												\$ Cash Fringe	4. \$ 5. \$ 6. \$																
												\$ Base Rate	1. \$ 2. \$ 3. \$																
												\$ Cash Fringe	4. \$ 5. \$ 6. \$																
12/9/2013												*IF REQUIRED																	
WWS-CP1												*SEE REVERSE SIDE												PAGE NUMBER ____OF					

***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 _____
- 4) Disability_____
- 2) Pension or retirement _____
- 5) Vacation, holiday_____
- 3) Life Insurance _____
- 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)

Weekly Payroll Certification For Public Works Projects (Continued)				PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS										Week-Ending Date: Contractor or Subcontractor Business Name:							
WEEKLY PAYROLL																					
PERSON/WORKER, ADDRESS and SECTION	APPR RATE %	MALE/ FEMALE AND RACE*	WORK CLASSIFICATION	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				FICA	FEDERAL	STATE	OTHER				
			Trade License Type & Number - OSHA								Total	TOTAL FRINGE BENEFIT PLAN									
			10 Certification Number	HOURS WORKED EACH DAY						O/T Hours	CASH										
																				\$ Base Rate	1. \$
																					2. \$
																					3. \$
																				\$ Cash Fringe	4. \$
																					5. \$
6. \$																					
																				\$ Base Rate	1. \$
																					2. \$
																					3. \$
																				\$ Cash Fringe	4. \$
																					5. \$
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																				\$ Base Rate	1. \$
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																					2. \$
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																				\$ Cash Fringe	4. \$
																					5. \$
6. \$																					

12/9/2013
WWS-CP2

*IF REQUIRED

NOTICE: THIS PAGE MUST BE ACCOMPANIED BY A COVER PAGE (FORM # WWS-CP1)

PAGE NUMBER ____ OF

[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: Landon Corporation, 15 Connecticut Avenue, Northford, CT 06472										SUBCONTRACTOR NAME & ADDRESS XYZ Corporation 2 Main Street Yantic, CT 06389			WORKER'S COMPENSATION INSURANCE CARRIER Travelers Insurance Company POLICY # #BAC8888928 EFFECTIVE DATE: 1/1/09 EXPIRATION DATE: 12/31/09							
PAYROLL NUMBER	Week-Ending Date	PROJECT NAME & ADDRESS																		
1	9/26/09	DOT 105-296, Route 82																		
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 Total O/T Hours	BASE HOURLY RATE TOTAL FRINGE BENEFIT PLAN CASH	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					FICA	FEDERAL	STATE	LIST OTHER		
				20	21	22	23	24	25	26										
Robert Craft 81 Maple Street Willimantic, CT 06226		M/C	Electrical Lineman E-1 1234567 Owner OSHA 123456		8	8	8	8	8			S-TIME 40 \$ 30.75 Base Rate O-TIME \$ 8.82 Cash Fringe	1. \$ 5.80 2. \$ 3. \$ 2.01 4. \$ 5. \$ 6. \$	\$1,582.80				P-xxxx	\$1,582.80	#123 \$ xxx.xx
Ronald Jones 212 Elm Street Norwich, CT 06360	65%	M/B	Electrical Apprentice OSHA 234567		8	8	8	8	8			S-TIME 40 \$ 19.99 Base Rate O-TIME \$ 16.63 Cash Fringe	1. \$ 2. \$ 3. \$ 4. \$ 5. \$ 6. \$	\$1,464.80	xx.xx	xxx.xx	xx.xx	G-xxx	\$1,464.80	#124 \$xxx.xx
Franklin T. Smith 234 Washington Rd. New London, CT 06320 SECTION B		M/H	Project Manager			8						S-TIME 8 \$ Base Rate O-TIME \$ Cash Fringe	1. \$ 2. \$ 3. \$ 4. \$ 5. \$ 6. \$	\$1,500.00	xx.xx	xx.xx	xx.xx	M-xx.x		#125 xxx.xx
												S-TIME \$ Base Rate O-TIME \$ Cash Fringe	1. \$ 2. \$ 3. \$ 4. \$ 5. \$ 6. \$							

7/13/2009
WWS-CP1
*IF REQUIRED
*SEE REVERSE SIDE
PAGE NUMBER 1 OF 2

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 Blue Cross 4) Disability _____
2) Pension or retirement _____ 5) Vacation, holiday _____
3) Life Insurance Utopia 6) Other (please specify) _____

CERTIFIED STATEMENT OF COMPLIANCE

For the week ending date of 9/26/09,

I, Robert Craft of XYZ Corporation, (hereafter known as
Employer) in my capacity as Owner (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 employee 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 employee 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 employee of the Employer 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 employee's name first appears.

Robert Craft owner 10/2/09
(Signature) (Title) Submitted on (Date)

Section B: Applies to CONNDOT Projects ONLY

That pursuant to CONNDOT contract requirements for reporting purposes only, all employees listed under Section B who performed work on this project are not covered under the prevailing wage requirements defined in Connecticut General Statutes Section 31-53.

Robert Craft owner 10/2/09
(Signature) (Title) Submitted on (Date)

Note: CTDOL will assume all hours worked were performed under Section A unless clearly delineated as Section B WWS-CP1 as such. Should an employee perform work under both Section A and Section B, the hours worked and wages paid must be segregated for reporting purposes.

THIS IS A PUBLIC DOCUMENT
DO NOT INCLUDE SOCIAL SECURITY NUMBERS

Information Bulletin

Occupational Classifications

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

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

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

- **ASBESTOS WORKERS**

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

- **ASBESTOS INSULATOR**

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

- **BOILERMAKERS**

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

- **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. PILEDRIVMEN. 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.

- **LABORER, CLEANING**

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

- **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 or tradesman, and not a delivery personnel.

- **ELECTRICIANS**

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

- **ELEVATOR CONSTRUCTORS**

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

- **FORK LIFT OPERATOR**

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

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

- **GLAZIERS**

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

- **IRONWORKERS**

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

- **INSULATOR**

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

- **LABORERS**

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

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

- **PAINTERS**

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

- **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. (demolition or removal of any type of roofing and or clean-up of any and all areas where a roof is to be relaid.)

- **SHEETMETAL WORKERS**

Fabricate, assemble, install and repair 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, canopies, cornice, column covers, awnings, beam covers, cladding, sun shades, lighting troughs, spires, ornamental roofing, metal ceilings, mansards, copings, ornamental and ventilation hoods, vertical and horizontal siding panels, trim, etc. The sheet metal classification also applies to the vast variety of coated metal material panels and composite metal material panels that have evolved over the years as an alternative to conventional ferrous and non-ferrous metals like steel, iron, tin, copper, brass, bronze, aluminum, etc. Fabrication, handling, assembling, erecting, altering, repairing, etc. of architectural metal roof, standing seam roof, composite metal roof, metal and composite bathroom/toilet partitions, aluminum gutters, metal and composite lockers and shelving, kitchen equipment, and walk-in coolers. To include testing and air –balancing ancillary to installation and construction.

- **SPRINKLER FITTERS**

Installation, alteration, maintenance and repair of fire protection sprinkler systems.

****License required per Connecticut General Statutes: F-1,2,3,4.***

- **TILE MARBLE AND TERRAZZO FINISHERS**

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

- **TRUCK DRIVERS**

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

Truck Drivers are required to be paid prevailing wage for time spent "working" directly on the site. These drivers remain covered by the prevailing wage for any time spent transporting between the actual construction location and facilities (such as fabrication, plants, mobile factories, batch plant, borrow pits, job headquarters, tool yards, etc.) dedicated exclusively, or nearly so, to performance of the contract or project, which are so located in proximity to the actual construction location that it is reasonable to include them. ****License required, drivers only, per Connecticut General Statutes.***

For example:

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

➤ *Any questions regarding the proper classification should be directed to:*
Public Contract Compliance Unit
Wage and Workplace Standards Division
Connecticut Department of Labor
200 Folly Brook Blvd, Wethersfield, CT 06109
(860) 263-6543.

**Connecticut Department of Labor
Wage and Workplace Standards Division
FOOTNOTES**

- ⇒ 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.

NOTICE OF AWARD

Date of Issuance:

Owner: City of Derby, CT

Owner's Contract No.:

Engineer: Weston & Sampson Engineers

Engineer's Project No.: ENG21-0831

Project: Sanitary Sewer Rehabilitation
Project – Phase 4

Contract Name:

Bidder:

Bidder's Address:

TO BIDDER:

You are notified that Owner has accepted your Bid dated _____ for the above Contract, and that you are the Successful Bidder and are awarded a Contract for the referenced Project:

The Contract Price of the awarded Contract is: \$ _____, subject to the unit priced listed in the bid.

☒ unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents accompanies this Notice of Award or has been transmitted or made available to Bidder electronically.

☒ a set of the Drawings will be delivered separately from the other Contract Documents.

You must comply with the following conditions precedent within 15 days of the date of receipt of this Notice of Award:

1. Deliver to Owner four (4) counterparts of the Agreement, fully executed by Bidder.
2. Deliver with the executed Agreement(s) the Contract security [*e.g., performance and payment bonds*] and insurance documentation as specified in the Instructions to Bidders and General Conditions, Articles 2 and 6.
3. Other conditions precedent (if any):

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

Within ten (10) days after you comply with the above conditions, Owner will return to you one (1) fully executed counterpart of the Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Owner:

Authorized Signature

By: _____

Title: _____

Copy: City of Derby WPCA, Weston & Sampson

SECTION 00520

AGREEMENT

THIS AGREEMENT, made this _____ day of _____, _____, by and between the _____ City of Derby, WPCA, Connecticut _____ hereinafter called "OWNER," acting herein through its Water Pollution Control Authority, and doing business as (a corporation) (a partnership) (a joint venture) (a limited liability company) (an individual)* located in the (City) (Town)* of _____, County of _____, and State of _____, hereinafter called "CONTRACTOR."

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the OWNER, the CONTRACTOR hereby agrees with the OWNER to commence and complete the project described as follows:

Sanitary Sewer Rehabilitation Project – Phase 4.

hereinafter called the project, for the sum of _____ *Dollars and* _____ *Cents* (\$_____) and all extra work in connection therewith, under the terms as stated in the Contract Documents; and at its own proper cost and expense to furnish superintendence, labor, services, materials, equipment, plant, machinery, apparatus, appliances, tools, supplies, bailing, shoring, removal, and all other things necessary to complete the said project in accordance with the conditions and prices stated in Section 00410, FORM OF GENERAL BID, Section 00700, GENERAL CONDITIONS, Section 00800, SUPPLEMENTARY CONDITIONS, Section 00830, CITY OF DERBY REQUIRMENTS, the plans, which include all maps, plates, drawings, blue prints, and the specifications and all other contract documents therefor as prepared by Weston & Sampson Engineers, Inc., including all bid documents.

The CONTRACTOR hereby agrees to commence work under this contract on or before a date to be fixed in the written Notice to Proceed given by the OWNER to the CONTRACTOR and to fully complete the project within 90 consecutive days of the start date fixed in the Notice to Proceed. The CONTRACTOR further agrees to pay as liquidated damages the sum of \$500 for each consecutive calendar day thereafter during which the work has not been fully completed, as provided in the Liquidated Damages provisions of Section 00800 SUPPLEMENTARY CONDITIONS.

The CONTRACTOR shall not discriminate against or exclude any person from participation herein on grounds of race, religion, color, sex, age or national origin; and that it shall take affirmative actions to insure that applicants are employed, and that employees are treated during

their employment, without regard to race, religion, color, sex, age, handicapped status, or national origin.

The CONTRACTOR shall not participate in or cooperate with an international boycott, as defined in Section 999 (b)(3) and (4) of the Internal Revenue Code of 1986, as amended.

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

The OWNER agrees to pay the CONTRACTOR in current funds for the performance of the Agreement, subject to additions and deductions, as provided in Section 00700, GENERAL CONDITIONS, and to make payments on account thereof as provided in Section 00700, GENERAL CONDITIONS.

The Contract Documents which comprise the Contract between Owner and Contractor are attached hereto and made a part hereof and consist of the following:

1. Invitation to Bid
2. Instructions to Bidders
3. Bid Form
4. This Agreement.
5. Certificate of Vote
6. Performance Bond
7. Payment Bond
8. Certificate of Insurance
9. General Conditions
10. Supplementary Conditions
11. Section 00820 Change Orders
12. Section 00830 City of Derby Affirmative Action Policy
13. Section 00890 Permits
14. Specifications (as listed in Table of Contents).
15. Contract Drawings entitled "Sanitary Sewer Rehabilitation Project – Phase 4", Dated December 2021 and all drawings as enumerated on the Title Sheet of the Contract Drawings.
16. Addenda numbers _____ to _____, inclusive.
17. Any modification, including Change Orders, duly delivered after execution of Agreement.
18. Documents listed in paragraph 1.01.A.12 of the General Conditions.

IN WITNESS WHEREOF, the parties to these presents have executed this Agreement in six (6) counterparts, each of which shall be deemed an original, in the year and day first above mentioned.

AGREED:

_____, Connecticut
(Owner)

By _____

(Name)

(Title)

(Contractor)

By _____

(Name)

(Title)

(Address)

(City and State)

Certificate of Owner's Attorney Regarding Contract Execution

I, the undersigned, _____, the duly authorized and acting legal representative of the City of Derby, Connecticut do hereby certify as follows:

I have examined the attached contracts and surety bonds and the manner of execution thereof, and I am of the opinion that each of the aforesaid agreements has been duly executed by the proper parties thereto acting through their duly authorized representatives; that said representatives have full power and authority to execute said agreements on behalf of the respective parties named thereon; and that the foregoing agreements constitute valid and legally binding obligations upon the parties executing the same in accordance with terms, conditions, and provisions thereof.

(Signature)

(Date)

CERTIFICATE OF VOTE
(to be filed if Contractor is a Corporation)

I, _____, hereby certify that I am the duly qualified and acting Secretary of
(Secretary of Corporation)
_____ and I further certify that a meeting of the Directors of said company,
(Name of Corporation)
duly called and held on _____, at which all members were present and voting, the
(Date of Meeting)
following vote was unanimously passed:

VOTED: To authorize and empower

Anyone acting singly, to execute Forms of General Bid, Contracts or Bonds on behalf of the Corporation.

I further certify that the above vote is still in effect and has not been changed or modified in any respect.

By: _____
(Secretary of Corporation)

A True Copy:

Attest: _____
(Notary Public)

My Commission Expires: _____
(Date)

END OF SECTION

NOTICE TO PROCEED

Owner:	City of Derby WPCA, CT	Owner's Contract No.:	
Contractor:		Contractor's Project No.:	
Engineer:	Weston & Sampson Engineers, Inc.	Engineer's Project No.:	ENG21-0831
Project:	Sanitary Sewer Rehabilitation Project – Phase 4	Contract Name:	
		Effective Date of Contract:	

TO CONTRACTOR:

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on [_____, 20__]. *[see Paragraph 4.01 of the General Conditions]*

On that date, Contractor shall start performing its obligations under the Contract Documents. No Work shall be done at the Site prior to such date. In accordance with the Agreement, [the date of Substantial Completion is _____, and the date of readiness for final payment is _____] **or** [the number of days to achieve Substantial Completion is _____, and the number of days to achieve readiness for final payment is _____].

Before starting any Work at the Site, Contractor must comply with the following:

[Note any access limitations, security procedures, or other restrictions]

Owner:

Authorized Signature

By:

Title:

Date Issued:

Copy: Engineer

SECTION 00610

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: That we _____
(Name of Contractor)

a _____ hereinafter called "Principal" and
(Corporation, Partnership, Joint Venture, Limited Liability Company or Individual)

_____ of _____, State of _____
(Surety) (City) (State)

called the "Surety" and licensed by the Connecticut Insurance Department to do business under the laws of the State of Connecticut are held and firmly bound to City of Derby, Connecticut 06418, hereinafter called "Owner," in the penal sum of _____ Dollars and _____ Cents (\$ _____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that Whereas, the Principal entered into a certain contract with the Owner, dated the _____ day of _____, _____, a copy of which is hereto attached and made a part hereof for the construction described as follows:

Sanitary Sewer Rehabilitation Project – Phase 4.

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the Owner, with or without notice to the Surety, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of this contract or to the work or to the specifications. The Surety Company providing the bond shall have a rating of A or better within the Best Key Rating Guide.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IMPORTANT – Surety Companies executing BONDS, must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact

business in the of Connecticut.

IN WITNESS WHEREOF, this instrument is executed in ____ (__) counterparts, each one of which shall be deemed an original, this the _____ day of _____, 20____.

ATTEST:

_____	_____
Principal	Witness as to Principal Signature
By _____	_____
Signature	Name and Title
_____	_____
Name and Title	Address
_____	_____
Address	City and State

City and State	(SEAL)

ATTEST:

_____	_____
Surety	Witness as to Surety Signature
By _____	_____
Attorney-in-Fact Signature	Name and Title
_____	_____
Name and Title	Address
_____	_____
Address	City and State

City and State	(SEAL)

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is a Partnership, all partners should execute Bond.

END OF SECTION

SECTION 00615

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: That we _____
(Name of Contractor)
a _____ hereinafter called "Principal"
and _____ (Corporation, Partnership, Joint Venture, Limited Liability Company or Individual)
_____ of _____, State of _____
(Surety) (City) (State)
hereinafter called "Surety" and licensed by the Connecticut Insurance Department to do business
under the laws of the State of Connecticut are held and firmly bound to the City of Derby,
Connecticut 06418, hereinafter called "Owner," in the penal sum of _____
Dollars and _____ Cents (\$ _____) in lawful money of
the United States, for the payment of which sum well and truly to be made, we bind ourselves, our
heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that Whereas, the Principal entered
into a certain contract with the Owner, dated the _____ day of _____, 20____, a
copy of which is hereto attached and made a part hereof for the construction described as follows:

Sanitary Sewer Rehabilitation Project – Phase 4.

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms,
subcontractors, and corporations furnishing materials for or performing labor in the prosecution of
the work provided for in such contract, and any authorized extension or modification thereof,
including all amounts due for materials, lubricants, oil, gasoline, repairs on machinery, equipment
and tools, consumed or used in connection with the construction of such work, and all insurance
premiums on said work, and for all labor, performed in such work whether by subcontractor or
otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and
agrees that no change, extension of time, alteration or addition to the terms of the contract or to
the work to be performed thereunder or the specifications accompanying the same shall in any way
affect its obligation on this bond, and it does hereby waive notice of any such change, extension
of time, alteration or addition to the terms of this contract or to the work or to the specifications.
The Surety Company providing the bond shall have a rating of A or better within the Best Key
Rating Guide.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall
abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IMPORTANT – Surety Companies executing BONDS, must appear on the Treasury
Department's most current list (Circular 570 as amended) and be authorized to transact
business in the of Connecticut.

IN WITNESS WHEREOF, this instrument is executed in ____ () counterparts, each one of which shall be deemed an original, this the _____ day of _____, 20__.

ATTEST:

_____	_____
Principal	Witness as to Principal Signature
By _____	_____
Signature	Name and Title
_____	_____
Name and Title	Address
_____	_____
Address	City and State

City and State	(SEAL)

ATTEST:

_____	_____
Surety	Witness as to Surety Signature
By _____	_____
Attorney-in-Fact Signature	Name and Title
_____	_____
Name and Title	Address
_____	_____
Address	City and State

City and State	(SEAL)

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is a Partnership, all partners should execute Bond.

END OF SECTION

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). Contractor 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 00800

SUPPLEMENTARY CONDITIONS

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SUPPLEMENTARY CONDITIONS

AMENDMENTS TO GENERAL CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (EJCDC C-700, 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.

ARTICLE 1. DEFINITIONS AND TERMINOLOGY

Delete the words "The individual or entity named as such in the Agreement" in 1.01.A.20 of the General Conditions, "Engineer", and insert the following in their place:

"The individual or entity duly appointed by the Owner to undertake the duties and powers herein assigned to the Engineer, acting either directly or through duly appointed representatives."

ARTICLE 2. PRELIMINARY MATTERS

SC-2.02

Delete paragraph 2.02A of the General Conditions in its entirety and insert the following in its place:

"A. Owner shall furnish to Contractor four (4) paper copies of the Contract Documents."

SC-2.03

"Delete paragraph 2.03 A.3 of the General Conditions and replace with the following:

3. a preliminary Schedule of Values for each Lump Sum item listed in the Bid, which includes quantities and prices of items which when added together equal the Lump Sum Bid Price and subdivides the Lump Sum Bid item 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."

SC-2.05

"Delete paragraph 2.05 A.3 of the General Conditions and replace with the following.

3. Contractor's Schedule of Values for Lump Sum Items will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Lump Sum Price to the component parts of the Work associated with the Lump Sum Item."

ARTICLE 3. DOCUMENTS: INTENT, REQUIREMENTS, REUSE

SC-3.01

Add the following sentence at the end of Paragraph 3.01A of the General Conditions:

"...by all. Each and every provision of law and clause required by law to be inserted in these Contract Documents shall be deemed to be inserted herein, and they shall be read and enforced as though it were included herein, and if through mistake or otherwise, any such provision is not inserted, or if not correctly inserted, then upon the application of either party, the Contract Documents shall forthwith be physically amended to make such insertion."

SC-3.03

Delete the last phrase of paragraph 3.03 A.3 of the General Conditions starting with "had", and substitute the following:

"knew or reasonably should have known thereof."

ARTICLE 4. COMMENCEMENT AND PROGRESS OF THE WORK

SC-4.01

Add a new paragraph immediately after paragraph 4.01A of the General Conditions which is to read as follows:

"B. Notwithstanding the time limitations provided in paragraph 4.01A, the OWNER may desire to commence the Contract Times later than the sixtieth day after the bid opening. The OWNER and CONTRACTOR, upon mutual agreement, may extend the commencement of the Contract Times to any date that they elect. OWNER must obtain CONTRACTOR's approval for extending the time beyond the dates/times stated in the Contract Documents."

SC-4.03

Add a new paragraph immediately after paragraph 4.03A of the General Conditions which is to read as follows:

"B. Engineer may check the lines, elevations and reference marks set by Contractor, and Contractor shall correct any errors disclosed by such check. Such a check shall not be considered as approval of Contractor's work and shall not relieve Contractor of the responsibility for construction of the entire Work in accordance with the Contract Documents. Contractor shall furnish personnel to assist Engineer in checking lines and grades."

SC-4.04

Add the following paragraph after paragraph 4.04B of the General Conditions:

- "C. The Contractor's resident superintendent shall attend monthly progress meetings at the site of the work with the Engineer and others as appropriate to review schedule status and such other pertinent subjects as may be listed on the agenda by the Engineer."

SC-4.05

Delete Article 4.05A in its entirety and replace with the following:

- "A. The Contractor hereby agrees that the Contractor shall have no claim for damages of any kind against the Owner or the Designer on account of any delay in the commencement or performance of any of the work or any delay or suspension of any portion of the work, whether such delay is caused by the Owner, the Designer, or otherwise except as provided for within the prevailing statutes. The Contractor acknowledges that the Contractor's sole remedy for any such delay and/or suspension will be an extension of time as provided in the Contract Documents. The Contractor will under no circumstances be eligible for additional compensation on account of any delay even if an extension of time is granted by the Owner.

Delete Article 4.05G in its entirety and replace it with the following:

- "G. Change Order requests for an extension of time under this paragraph must be submitted no later than 14 calendar days from the commencement of the event giving rise to the claimed delay, and must be accompanied by a detailed analysis identifying each action(s) or additional work item(s) which caused the delay and identifying exactly which items along the critical path were impacted or delayed. Accumulating the amount of time required to complete a series of additional work items or delays and adding this time to the original Contract Time will not be considered justification for an extension of time. To justify an extension of Contract Time, the Contractor must prove clearly and convincingly that the critical path for construction has been impacted by circumstances beyond the control of the Contractor and that the CPM schedule cannot be revised to eliminate the need for the requested time extension."

Add the following new paragraphs after paragraph 4.05G of the General Conditions:

"4.06 Liquidated Damages:

- A. If the Contractor shall neglect, fail or refuse to complete the work within the time herein specified, or any proper extension thereof granted by the Owner, then the Contractor does hereby agree, as a part consideration for the awarding of this Contract, to pay to the Owner the amount specified in the Contract, not as a penalty but as liquidated damages for such breach of contract as hereinafter set forth, for each and every calendar day that the Contract shall be in default after the time stipulated in the Contract for completing the work. Such damages may be retained from time to time by the Owner from progress payments or any amounts owing to the Contractor, or otherwise collected.
- B. The said amount is fixed and agreed upon by and between the Contractor and the Owner because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the Owner would in such event sustain, and said amount is agreed to be the amount

of damages which the Owner would sustain and said amount shall be retained from time to time by the Owner from current periodical estimates.

- C. It is further agreed that time is of the essence of each and every portion of this Contract and of the specifications wherein as definite and certain length of times if fixed for the performance of any act whatsoever; and where under the Contract an additional time is allowed for the completion of any work, the new time limit fixed by such extension shall be of the essence of this Contract. Provided that the Contractor shall not be charged with liquidated damages of any excess cost when the Owner determines that the Contractor is without fault and the Contractor's reasons for the time extension are acceptable to the Owner; Provided, further, that the Contractor shall not be charged with liquidated damages or any excess cost when the delay in completion of the work is due:
- 1) to any preference, priority or allocation order duly issued by the Government;
 - 2) to unforeseeable cause beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God, or of the public enemy, acts of the Owner, acts of another Contractor in the performance of a contract with the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and severe weather; and
 - 3) to any delays of subcontractors or suppliers occasioned by any of the causes specified in subsections C (1) and C (2) above;
- D. Provided, further, that the Contractor shall, within thirty (30) days from the beginning of such delay, unless the Owner shall grant a further period of time prior to the date of final settlement of the Contract, notify the Owner, in writing, of the causes of the delay, who shall ascertain the facts and extent of the delay and notify the Contractor within a reasonable time of its decision in the matter."

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

SC-5.03

Delete the term "Supplementary Conditions" of paragraph 5.03A of the General Conditions and replace it with "Contract Documents".

Delete the term "Supplementary Conditions" of paragraph 5.03B line 2 of the General Conditions and replace it with "Contract Documents".

SC-5.05

Delete the following words from lines 3 and 4 of paragraph 5.05 E.1 of the General Conditions:

"...or was not shown or indicated with reasonable accuracy"

SC-5.06

Delete the term Supplementary Conditions in paragraph 5.06A of the General Conditions and replace it with “Contract Documents”.

Add the following to the first sentence of paragraph 5.06C:

“or unless Contractor caused or contributed to such Hazardous Environmental Condition.”

ARTICLE 6. BONDS AND INSURANCE

NOTICE TO CONTRACTOR:

1. Proof of Insurance coverage shall be furnished to the Owner in accordance with the schedule for submittal of Bonds and Agreements.
2. Additionally, refer to Article 2. PRELIMINARY MATTERS, Paragraph SC-2.01 B of the General Conditions.

SC-6.01

Insert these sentences following SC-6.01.A of the General Conditions: The Surety Company providing the bonds shall have a rating of A or better within the Best Key Rating Guide and be licensed by the State of Connecticut. The CONTRACTOR shall pay the premiums for such Bonds.

SC-6.02

Delete paragraph 6.02D of the General Conditions in its entirety if Owner is not providing insurance policies, coverages or endorsements for the Work.

SC-6.03

Add the following to paragraph 6.03C:

“9. Independent Contractors Coverage.”

The limits of liability for the insurance required by paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by law:

6.03A Workers' Compensation.

(1)	Worker's Compensation per	Statutory Requirements
(2)	Coverage B - Employer's Liability	\$100,000/\$500,000/\$100,000

6.03B and 6.03C Commercial General Liability Limits shall include coverage for Independent Contractors, explosion, collapse and underground hazard coverage (XCU), broad form property

damage, blanket contractual liability and products/completed operations. The general aggregate limits shall be endorsed so that they respond on a per project and per location basis.

Limits:

\$1,000,000 each occurrence

\$2,000,000 general aggregate

\$2,000,000 products/completed operations aggregate

6.03D Automobile Liability for owned, hired and non-owned vehicles:

\$1,000,000 Bodily Injury and Property Damage combined single limit

6.03E Umbrella or Excess Liability

Combined single limit of not less than \$5,000,000 per occurrence and in the aggregate

6.03F Contractor's Pollution Liability

\$2,000,000 each occurrence and \$2,000,000 in the aggregate

6.03H Contractor's Professional Liability

\$1,000,000 per claim and \$1,000,000 in the aggregate

Delete paragraph 6.03.I.3 of the General Conditions in its entirety and insert the following in its place:

- “3. contain a provision that notice of cancellation of insurance be delivered in accordance with policy provisions. In addition, the Contractor and/or its insurance broker/agent shall immediately notify the Owner and Engineer should any insurance coverage be cancelled. The Contractor shall immediately stop work on the Project and shall not resume work until the Contractor provides evidence, to the Owner and Engineer, in the form of an acceptable insurance certificate, of new insurance coverage that replaces all cancelled coverage that is required for the Project.”

Add the following paragraph~~s~~ to SC-6.03I of the General Conditions:

- “6. If the aggregate limits of liability indicated in Contractor's insurance provided in accordance with paragraph 6.03 are not sufficient to cover all claims for damages arising from its operations under this Contract and from any other work performed by it or if the commercial general liability insurance policy of insurance does not provide that the general aggregate limits apply on a per project and per location basis, Contractor shall have the policy amended

so that the aggregate limits of liability required by this Contract will be available to cover all claims for damages due to operations under this Contract.

7. Include by endorsement that the insurer shall waive all rights of subrogation in favor of the Owner, Engineer and any other party named in the written contract against whom the insurer must agree to waive rights of subrogation."

SC-6.04

Delete paragraph 6.04 of the General Conditions in its entirety.

SC-6.05

Delete Article 6.05 of the General Conditions in its entirety.

SC-6.06

Amend the last sentence of paragraph 6.06A of the General Conditions by striking out the words "held by Owner or Contractor as trustee or fiduciary, or." As so amended, paragraph 6.06A remains in effect.

SC-6.08

Add the following paragraph 6.08 after paragraph 6.07 of the General Conditions:

"A. If Owner has any objection to the coverage afforded by or other provisions of the insurance required to be purchased and maintained by Contractor in accordance with this Article 6 on the basis of its not complying with the Contract Documents, Owner will notify Contractor in writing thereof within thirty days of the date of delivery of such certificates to Owner in accordance with paragraph 6.02C. Contractor will provide such additional information in respect of insurance provided by him as Owner may reasonably request."

ARTICLE 7. CONTRACTOR'S RESPONSIBILITIES

SC-7.01

Delete paragraph 7.01B of the General Conditions in its entirety and replace with the following:

"B. At the site of the Work the Contractor shall employ a full-time construction superintendent or foreman who shall have full authority to act for the Contractor. It is understood that such representative shall be acceptable to the Engineer and shall be one who will be continued in the capacity for the particular job involved unless the representative ceases to be on the Contractor's payroll. If at any time during the Work the representative is deemed by the Engineer to be no longer acceptable, the representative shall be promptly replaced by the Contractor. All communications to the superintendent or foreman shall be as binding as if given to the Contractor."

SC-7.07

Delete the second sentence in paragraph 7.07A of the General Conditions.

SC-7.12

In line 2 of paragraph 7.12C of the General Conditions change “Supplementary Conditions” to “Contract Documents”.

SC-7.13

Delete the text in parentheses at the end of the third sentence of paragraph 7.13B of the General Conditions.

SC-7.16

In paragraph 7.16D.1 of the General Conditions, delete the word “timely” from the first line.

SC-7.18

Change the phrase “negligent act or omission” to “negligent or wrongful act or omission” in line 11 of paragraph 7.18A of the General Conditions.

Add the following to the end of paragraph 7.18A of the General Conditions:

“The Contractor hereby acknowledges its obligation under the foregoing paragraph to indemnify the Engineer and Owner against judgments suffered because of the contractor's work and to assume the cost of defending the Engineer and Owner against claims as described in the foregoing paragraph.”

Delete paragraph 7.18C of the General Conditions in its entirety.

ARTICLE 9. OWNER'S RESPONSIBILITIES

SC-9.02

Delete the phrase “provided Contractor makes no reasonable objection to the replacement engineer” in paragraph 9.02A of the General Conditions.

SC-9.06

Delete paragraph 9.06A of the General Conditions in its entirety.

SC-9.09

Insert the following after the first sentence of paragraph 9.09A of the General Conditions:

“However, the Owner shall have the right to direct the Contractor to perform the Work according to any sequence schedule set forth in the Contract Documents or established pursuant thereto.”

ARTICLE 10. ENGINEER'S STATUS DURING CONSTRUCTION

SC-10.01

Add a new paragraph 10.01B after paragraph 10.01A of the General Conditions, which is to read as follows:

"B. Nothing contained in the Contract Documents shall be construed to create a contractual relationship of any kind (1) between the Engineer and Contractor, (2) between the Owner and a Subcontractor or Subcontractors, or (3) between any person or entities other than the Owner and Contractor. The Engineer shall, however, be entitled to performance and enforcement of obligations under the Contract Documents intended to facilitate performance of the Engineer's duties."

SC-10.02

Insert the following at the end of paragraph 10.02B of the General Conditions:

“However, the Engineer shall have the right to direct the Contractor to perform the Work according to any sequence schedule set forth in the Contract Documents or established pursuant thereto.”

SC-10.03

Delete the last sentence of paragraph 10.03A.

SC-10.08

Insert the following after the first sentence of paragraph 10.08B of the General Conditions:

“However, the Engineer shall have the right to direct the Contractor to perform the Work according to any sequence schedule set forth in the Contract Documents or established pursuant thereto.”

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

Delete Article 13 of the General Conditions in its entirety and replace with the following:

"A. The unit price of an item of Unit Price work shall be subject to reevaluation and adjustment under the following conditions:

- (1) If the total extended bid price [Estimated Quantity times the Bid Unit Price] of a particular item of Unit Price Work amounts to 5 percent or more of the Original Contract Price and the variation in the quantity of the particular item of Unit Price

Work performed by Contractor differs by more than 15 percent from the estimated quantity of such item indicated in the Agreement; and

- (2) If there is no corresponding adjustment with respect to any other item of work; and
- (3) If Contractor believes that Contractor has incurred additional expense as a result thereof, Contractor may make a claim for an adjustment in the Contract Price in accordance with Article 12 if the parties are unable to agree as to the effect of any such variations in the quantity of Unit Price Work performed. If Owner believes that the quantity variation entitles Owner to an adjustment in the unit price, Owner shall be entitled to an adjustment in the unit price in an amount determined by the Engineer. Engineer shall not be liable in connection with any determination relating to adjustments which is rendered in good faith."

ARTICLE 14. TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

SC-14.03

Delete the word "Prompt" at the beginning of paragraph 14.03C of the General Conditions.

SC-14.07

Revise paragraph 14.07A of the General Conditions as follows:

- A. Delete the word "seven" and replace it with the word "ten" so that it reads "after ten days' written notice to Contractor."

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

SC-15.01

Delete paragraph 15.01B.3 of the General Conditions and insert the following in its place:

- "3. Retainage with respect to progress payments will be five percent or, if stipulated, the maximum allowed by law."

Delete the word "immediate" from subparagraph 15.01E.2 of the General Conditions.

Delete subparagraph 15.01E.3 of the General Conditions in its entirety.

SC-15.02

Delete paragraph 15.02A in its entirety and insert the following in its place:

- "A. Contractor warrants and guarantees that title to all work, material and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner

no later than at the time of Application for Payment free and clear of all liens. Contractor shall provide written transfer of title and a certified paid invoice provided by the supplier."

SC-15.03

Delete the third sentence of paragraph 15.03C of the General conditions and replace it with the following:

"Owner shall review the preliminary certificate and make written objection to Engineer as to any provisions of the certificate or attached punch list."

In the same paragraph, delete the phrase "within 14 days after submission of the preliminary certificate to Owner" in the fourth sentence; delete the phrase "within said 14 days" in the fifth sentence.

SC-15.06

Delete from paragraph 15.06B.1 of the General Conditions the phrase "within 10 days after receipt of the final Application for Payment," in the first sentence.

SC-15.08

Delete paragraph 15.08A of the General Conditions and insert the following in its place:

"A. If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or 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, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions: (i) correct such defective work, or, if it has been rejected by Owner, remove it from the site and replace it with work that is not defective, and (ii) satisfactorily correct or remove and replace any damage to other work or the work of others therefrom. If Contractor does not begin the repairs within ten (10) days of receipt of written notification and promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk, loss or damage, Owner may have the defective work corrected or the rejected work removed and replaced, and all claims, costs, losses and damages caused by or resulting from such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor."

ARTICLE 16. SUSPENSION OF WORK AND TERMINATION

SC-16.02

Add a new paragraph immediately after paragraph 16.02 A.4 of the General Conditions which is to read as follows:

"5. If the Work to be done under this Contract shall be abandoned, or if this Contract or any part thereof shall be sublet, without the previous written consent of Owner, or if the contract or any claim thereunder shall be assigned by Contractor otherwise than as herein specified."

ARTICLE 18. MISCELLANEOUS

SC-18.09, 18.10, 18.11, 18.12, 18.13

Add the following new paragraphs after paragraph 18.08 of the General Conditions:

"18.09 Assignment:

- A. The Contractor shall not assign the whole or any part of this Contract or any moneys due or to become due hereunder until thirty (30) days prior notice in writing has been given to the Owner of the intention to assign, which notice shall state the identity and address of the prospective assignee. No assignment shall be made without the Owner's prior written consent. Such consent shall not be unreasonably withheld. In case the Contractor assigns all or any part of the 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 to any moneys due or to become due to the Contractor shall be subject to prior claims of all persons, firms and corporations of services rendered or materials supplied for the performance of the work called for in this Contract.

18.10 Liability

It is understood and agreed that members of the Owner or any agent or employees of the Owner signing this Agreement shall not be personally liable hereunder for any action incurred in connection with this Agreement.

18.11 City of Derby Requirements

See Section 00830 of these Specifications for further modifications of the General Conditions due to City of Derby Requirements.

18.12 Severability

If any provision of this Agreement shall be invalid or unenforceable to any extent or in any application, then the remainder of this Agreement and of such terms and conditions, except to such extent or in such application, shall not be affected thereby, and each and every term and condition of this Agreement shall be valid and enforced to the fullest extent and in the broadest application permitted by law."

END OF SECTION

SECTION 00820

CHANGE ORDERS

Policy:

This section supplements Article 12, Change of Contract Price, in the General Conditions and Supplementary Conditions.

All executed change orders submitted to the Engineer for review and processing must be prepared in accordance with the attached change order format with the appropriate number of copies, calculation sheet(s) (Appendix B) and all other supporting documentation necessary for evaluation. Failure to comply with these instructions will result in delays in processing the change order.

In order to avoid possible delays with approval of change orders, at the beginning of the project and as circumstances warrant, the Contractor shall submit a list of construction equipment, identifying major pieces of equipment to be utilized on the project. The list shall include the Contractor's designation, if any, the manufacturer, model, year of manufacture, serial number, size and horsepower of equipment. The Contractor shall also provide for approval a proposed bluebook equipment rental rate development that separately lists for each piece of equipment the monthly rental rate, area adjustment factor, depreciation factor, estimated operating cost per hour and total hourly rate. In the event the Contractor fails or is unable to provide appropriate rate information the Engineer may develop equipment rental rates for use on change orders.

Payment of Change Orders:

Payment of all change orders shall be in accordance with the relevant provisions of the Connecticut General Statutes as amended from time to time.

Payment of change orders shall be made in accordance with one of the following three methods:

- A. Existing unit prices as set forth in the contract; or
 - B. Agreed upon lump sum or unit prices; or
 - C. Time and materials
- A. Payment for work for which there is a unit price in the contract:

Where the contract contains a unit price for work and the Engineer orders a change for work of the same kind as other work contained in the contract and is performed under similar physical conditions, the Contractor shall accept full and final payment at the contract unit price(s) for the acceptable quantities. Under certain circumstances, the unit prices may be subject to revaluation and adjustment. See Article 11 in the Supplementary Conditions.

B. Payment for work or materials for which no price is contained in the contract:

If the Engineer directs, the Contractor shall submit promptly in writing to the Engineer an offer to do the required work on a lump sum or unit price basis, as specified by the Engineer. The stated price, either lump sum or unit price, shall be divided so as to show that it is the sum of:

1. The estimated cost of Labor, plus
2. Direct Labor Cost, plus
3. Material and Freight Costs, plus
4. Equipment Costs, plus
5. An amount not to exceed 15% of the sum of items 1 through 4 for overhead and profit, plus (if applicable),
6. In the case of work done by a subcontractor an amount not to exceed 5%, for the general contractor of the sum of the cost (not including subcontractor's overhead and profit) of items 1 through 4 for his overhead and profit (less, if applicable),
7. Credits for work deleted from the contract, including actual costs of the deleted work plus the percentage of overhead, profit, bonds and insurance attributable to such credit amount.

C. Payment for work on a time and materials basis:

Unless an agreed lump sum and/or unit price is obtained as noted above and is so stated in the change price, the Contractor shall accept as full payment for which no agreement is contained in contract, an amount equal to:

1. The estimated cost of Labor, plus
2. The Direct Labor Costs, plus
3. Equipment Costs, plus
4. Material and Freight Costs, plus
5. An amount not to exceed 15% of the sum of items 1 through 4 for overhead and profit, plus, if applicable,
6. In the case of work done by a subcontractor an amount not to exceed 5%, for the general contractor of the sum of the cost (not including subcontractor's overhead and profit) of items 1 through 4 for his overhead and profit (less, if applicable),
7. Credit for work deleted from the Contract, including actual costs of the deleted work plus the percentage of overhead, profit, bonds and insurance attributable to such credit amount.

Explanation of items 1 through 7 as outlined in "B" and "C" above:

1. Labor - Only those workers employed on the project who are doing the extra work, including the foreman in charge, are allowable. General foremen, superintendents, or other supervisory personnel are considered to be included in the overhead markup as provided in items 5 and/or 6. Hourly labor rates in excess of those as listed in the

contract wage rates require documentation. As a minimum, an explanation and the appropriate copy of the certified payroll are required.

2. Direct Labor Costs - These costs are limited to those which are required in the contract document. Coverage in excess of the contract provisions, secured by the contractor/subcontractor(s) at his option, are ineligible. The following list of typical direct labor charges is provided for your assistance and is in no way intended to be complete or all encompassing:

Workman's Compensation

Federal/State: Social Security Tax and Unemployment Tax;

Health, Welfare and Pension Benefits; (this cost is included in the wage rates appearing in the Attachment A Connecticut Wage Rates.

Liability insurance:	Bodily injury; excess umbrella; property damage; public liability
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Blasters insurance:	If applied to any required direct labor costs
---------------------	---

Builders risk insurance:	If applied to any required direct labor costs
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Experience modification insurance:	If applied to any required direct labor costs
------------------------------------	---

Surcharges:	If applied to any required direct labor costs
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Following award and prior to execution of a construction contract, the Contractor and filed subbidders (where applicable) shall submit for review by the Owner, documentation to establish the markup percentage(s).

The documented direct labor markup for this contract may be adjusted on an annual basis as measured from the date the contract is executed. The contract agreement will provide for the establishment of the Direct Labor Cost percentage.

3. Material and Freight - Only those materials required as a result of the change order and reasonable freight charges for delivery of same are allowable.
4. Equipment - Only the equipment required as a result of the change order is allowable. Equipment rental rates shall be governed by the current EquipmentWatch, division of Intertec Publishing [Formerly Nielson/Dataquest] Rental Rate Bluebook for Construction Equipment (the "Bluebook"). In determining the rental rate the following shall apply:
 - a. For equipment already on the project - the monthly prorated rental rate by the hourly use shall be applicable;

b. For equipment not on the project the daily rate, the weekly rate, or monthly rate will prevail, whichever will prove to be most cost effective. Small tools and manual equipment are examples of costs not allowable under this item. These costs are considered to be included in the overhead markup as provided in items 5 and/or 6.

(1 Month (Normal Use) = 176 hours)

5.& 6. Overhead and Profit - All other costs not previously mentioned are considered to be included in this item, be it for the general contractor or subcontractor(s).

7. Credits - Work deleted, material and equipment removed from the contract, stored and/or returned shall be credited to the cost of the change order, less documented costs.

This change order will be prepared in such manner as to clearly separate Eligible and Ineligible Costs.

The Contractor shall furnish itemized statements of the cost of the work ordered and shall give the Engineer access to all accounts, bills and vouchers relating thereto; and unless the Contractor shall furnish such itemized statements, and access to all accounts, bills and vouchers, he shall not be entitled to payment for any items of extra work for which such information is sought by the Engineer.

APPENDIX A

CHANGE ORDER
(Enter Project Name)
(Enter Location)

Sheet __ of

Date _____

Project No. _____

Contract No. _____

Change Order No. _____

Owner's Name: _____

Owner's Address: _____

Contractor's Name: _____

Contractor's Address: _____

Item 1:

Description of Change: _____

Reason for Change: _____

Backup Information: _____

Cost: \$ _____

Item 2

Description of Change: _____

Reason for Change: _____

Backup Information: _____

Cost: \$ _____

Change Order (Continued)
(Enter Project Name)
(Enter Location)

Sheet ___ of

Date _____

Project No. _____

Contract No. _____

Change Order No. _____

Contract Amount (As Bid) \$ _____

Amount of Previous Change Orders \$ _____

Net Change in Contract Price (this Change Order) \$ _____

Total Adjusted Contract Price (including this Change Order) \$ _____

This Change Order extends the time to complete the work by ____ calendar days.

The extended completion date is _____
_____.

This Change Order checked by: _____
Resident Representative Date

This Change Order is requested by: _____

This Change Order is recommended by:

Consultant Engineer P.E. # Date

The undersigned agree to the terms of the Change Order.

Contractor Date

Owner Date

Engineer Date

Appendix B
Example Calculation Sheet

1. Labor

Foreman	10 hours @	\$10.00/hour	\$100.00
Engineer	10 hours @	8.50/hour	85.00
Operator	10 hours @	9.50/hour	95.00
Laborers	24 hours @	7.00/hour	<u>168.00</u>
			\$448.00

2. Direct Labor Cost (use the agreed upon Direct Labor Cost)

*(30)% of \$448.

*(used for example purposes only) \$ 134.00

3. Materials & Freight

150 l.f. of 12" pipe @ \$2.00/l.f.	\$ 300.00
15 v.f. precast SMH	1,700.00
Freight (slip# ___ enclosed)	<u>25.00</u>

4. Equipment

1 Backhoe	10 hours @	\$ 80.00/hour	\$ 800.00
1 Truck-crane	10 hours @	100.00/hour	<u>1000.00</u>
			\$1800.00

TOTAL (items 1 through 4): \$4,407.00

5. (20%) markup for Overhead, Profit

(20%) of \$4,407 \$ 881.00

6. (7½ %) markup on subcontractor's cost for general contractor (if subcontractor is involved)

(7½ %) of \$4,407 \$ 331.00

7. Credits (deductibles) -\$323.00

TOTAL COST: \$5,296.00

Reminder: Provide support documentation as necessary i.e. vouchers, correspondence, calculation, photographs, reports.

END OF SECTION

Section 00830
City of Derby, Connecticut,
Affirmative Action Policy

CITY OF DERBY, CONNECTICUT

AFFIRMATIVE ACTION POLICY

Anthony Staffieri, Mayor

February 22, 2007

PART A: GENERAL

A-1. Purpose:

Equal Opportunity Policy: The City of Derby, Connecticut is committed to provide equal employment opportunities. In keeping with that commitment, it is the policy of the City of Derby to provide equal opportunities to all employees and applicants for employment and to recruit, hire, train, promote, compensate, provide benefits, transfer, layoff and take all other personnel actions without regard to race, color, religion, age, sex, sexual orientation, marital status, national origin, ancestry, present or past history of mental disorder, mental retardation, learning disability or physical disability, including but not limited to, blindness. This policy has my full support as Mayor. All department heads are responsible for ensuring compliance with this equal employment opportunity policy.

This policy statement shall be disseminated as a separate document signed by the Mayor to all department heads on an annual basis and shall be posted on bulletin boards or other conspicuous places in all departments.

A-1.1 Analysis: An analysis of current City employment data and practices, so as to evaluate:

- a) The percentage of minority and female personnel employed by the City in relationship to the presence of minorities and females in the City's labor market area;
- b) The extent to which minorities and females are concentrated within a particular City function.

A-1.2 Program: to establish a program for affirmative action designed to correct identified areas of concern, to overcome any effects of past discrimination, and to protect against future discriminating actions.

A-2. Applicability: The evaluation and program set forth herein are applicable to all non-appointed and non-elected personnel positions and functions of the City of Derby, excluding positions under the jurisdiction of the Board of Education of the City of Derby.

Policy Against Discrimination and Sexual Harassment

The City of Derby ("City") and the Mayor are committed to providing a work environment free from all forms of unlawful discrimination. Toward that end, the City expressly prohibits sexual harassment and all other unlawful discrimination. No supervisor or management employee has the authority to condition any employment term, condition or benefit on the granting of sexual favors or to tolerate unwelcome sexual conduct or any other conduct prohibited by this policy. All employees, whether supervisors or non-supervisors, are strictly prohibited by this policy from attempting to discourage or dissuade harassment victims or other employees who believe they have been unlawfully discriminated against from using the internal complaint procedure. All employees are also strictly prohibited from taking retaliatory action of any kind against

any employee because the employee made a good faith complaint of sexual harassment or discrimination, or against any witness who participated in the investigation of a sexual harassment or discrimination complaint. Any violation of this policy shall be treated as a serious misconduct and will result in appropriate disciplinary action, which may include termination of employment.

Definition of Sexual Harassment: Harassment because of sex includes sexual harassment, gender harassment, and harassment based on pregnancy, childbirth or related medical conditions. Sexual harassment is defined as any unwelcome sexual advance, request for sexual favors, and all other visual, verbal or physical conduct of a sexual or offensive nature where (1) submission to such conduct is made either explicitly or implicitly a term or condition of the individual's employment, (2) submission to or rejection of such conduct is used as the basis for an employment decisions affecting such individual or (3) such conduct has the purpose or effect of unreasonably interfering with an individual's work performance or creating an intimidating, hostile or offensive work environment.

Examples of Prohibited Conduct

- ❖ Offering employment benefits, such as favorable assignments, reviews, promotions or the like in exchange for sexual favors;
- ❖ Making or threatening retaliation or reprisals of any kind after a negative response to sexual advances;
- ❖ Making unwelcome sexual advances, propositions, flirtation or repeated unwelcome requests for a social date or other social contact;
- ❖ Using verbal abuse of a sexual or gender-based nature, such as using sexually degrading or vulgar words to describe an individual or making derogatory sexual or gender-related comments, slurs, taunts, jokes, or epithets. Likewise, derogatory comments, slurs, taunts or epithets based on or about an individual's race, color, religion, age, sexual orientation, national origin, ancestry or disability.
- ❖ Asking questions about sexual conduct or sexual orientation or disclosing or spreading rumors about such information concerning yourself or others;
- ❖ Making verbal comments about an individual's body, sexual prowess, sexual orientation or sexual deficiencies;
- ❖ Whistling at, pinching, assaulting, brushing the body of, impeding or blocking the movement of or touching another employee's body or clothing;
- ❖ Staring or leering at an individual or at any part of an individual's body, or making any sexual, sexually aggressive or obscene gestures;

- ❖ Displaying in the work place nude, pornographic or sexually suggestive objects, pictures, posters, cartoons or e-mail, or pictures, posters, cartoons, or e-mail depicting any race, religion or other protected group in a demeaning, derogatory or offensive manner; or jokes about sexual orientation, race, etc.
- ❖ Telling sexual or gender-based jokes, or jokes about race, color, religion, sexual orientation, ancestry or disability;
- ❖ Sending sexually suggestive or obscene correspondence, notes, memos cards or gifts to another employee;
- ❖ Retaliating against an employee for refusing to participate in any of the above conduct or for complaining about any such conduct or for cooperating in an investigation regarding any possible violation of this policy;

Complaint Procedure: If any employee believes he or she has been sexually harassed or subjected to conduct in violation of this policy, or otherwise unlawfully discriminated against because of their race, color, age, sexual orientation, disability, etc., they should promptly report the matter to either their department head and/or the Mayor.

Employees are encouraged to immediately report conduct which they believe to be unlawful discrimination or in violation of this policy. Making complaints immediately will help to ensure that any sexually harassing or other form of discriminatory conduct is promptly investigated and remedied.

Supervisors must immediately report conduct which is believed to be in violation of this policy, whether or not any of the individuals involved are subordinates of the supervisor, to their department head or the Mayor.

Investigation Process: All reports of alleged violations of this policy will be promptly and thoroughly investigated. If the City determines that sexual harassment or other discrimination in violation of this policy or the law has occurred, appropriate corrective action will be taken to end the sexual harassment or other discrimination. Appropriate corrective action will include discipline against any employee found to have violated this policy, and may include termination.

Confidentiality: The City will protect the privacy of employees involved in investigations of complaints of sexual harassment or other discrimination by maintaining confidentiality to the extent reasonably possible to accomplish the purposes of this policy. The outcome of the investigation and any corrective and disciplinary action taken will be reported to the person who made the complaint.

Retaliation Strictly Forbidden: Each employee has a right to report any and all conduct which they believe violates this policy without fear of retaliation or reprisal. There shall be absolutely no retaliation or reprisal of any kind against anyone who in good faith makes a report or complaint of sexual harassment or other discrimination, even if such report or complaint is determined after investigation to be unfounded, or against any witness. Any complaint of alleged retaliation should be made in accordance with the

complaint procedure set forth above. Employees who retaliate against any complainant or witness shall be subject to severe discipline, which may include discharge.

It is emphasized that the above complaint procedure applies to all forms of unlawful discrimination, not just sexual harassment.

B-2. City Characteristics:

B-2.1 Resident Population: The 2000 Census reported a total resident population for the City of Derby of 12,391. Approximately 52 percent or 6,407 of the total population are women. Minority group membership is 2,179 or 17.59% of the population. The breakdown of minority membership by minority group is as follows:

TABLE 1: CITY RESIDENT POPULATION – MINORITY GROUP MEMBERS

MINORITY GROUP MEMBERS	<u>TOTAL</u>	<u>PERCENTAGE</u>
Black or African American	449	3.62%
American Indian & Alaska Native	20	0.16%
Asian	215	1.74%
Native Hawaiian & Other Pacific Islander	8	0.06%
Hispanic or Latino (of any race)	950	7.67%
Other	312	2.52%
Two or More Races	225	1.82%

B-2.2 Resident Civilian Labor Force: The Resident Civilian Labor Force of the City of Derby has 6,833 members.

Source: CT Labor Force Data for Labor Market Areas & Towns – September 2006.

B-3. Employees – City of Derby, Connecticut: The City of Derby presently employs 72 full-time employees and 57 part-time employees in non-appointed and non-elected positions. The composition of the City's labor force is identified as follows:

TABLE 2: EMPLOYEES – CITY OF DERBY

TYPE OF EMPLOYMENT	TOTAL	FEMALE	MALE
Full-time	72	19	53
Part-time	57	21	36

Source: City of Derby Employment Records

PART B: EVALUATION – EMPLOYMENT RESOURCES AND STATISTICS

B-1: Bridgeport Labor Market Characteristics:

B-1.1 Resident Population: The City of Derby is located within the Bridgeport Labor Market which, as defined by the Connecticut Labor Department, includes the Towns and Cities of Bridgeport, Easton, Fairfield, Milford, Monroe, Shelton, Stratford, Trumbull, and Derby. The area contains contained an estimated total population of 415,945.

Source: CT State Register & Manual

B-1.2 Resident Civilian Labor Force: Latest figures issued by the Connecticut Labor Department based on the September 2006 "Resident Civilian Labor Force" in the Bridgeport Labor Market Area totaled 208,354.

B-4. Evaluation: City of Derby Employees and Labor Supply:

B-4.1 Female Employment – Permanent, Full-time Positions: An evaluation of the City's employment positions indicates that a large percentage of the full-time as well as part-time positions are specialized in nature, which traditionally have attracted and have been filled by a particular sex. For example, the Highway Department, Sanitation Department, the Department of Water Pollution Control and Police Department employ a total of 50 of the City's 72 permanent, full-time (non-appointed and non-elected) positions. Four (4) of the 50 positions are administrative (i.e., Chief of Police, Superintendent of Public Works, Superintendent of Water Pollution Control, Administrative Aide for W.P.C.A.). The remaining 46 positions involve activities and skills (i.e., laborers, mechanics, and patrolmen) which have traditionally been performed by males and attracted only male applicants. No evidence is available to suggest that, absent proactive remedial action this job pattern will change in the near future.

B-4.3 Minority Employment: The City identifies a need to increase minority participation in the City's permanent, full-time and in the part-time positions for Hispanics and African-Americans so that minority employment by the City more closely approximates the percent of minority representation for such groups in the City's Resident Civilian Labor Force as well as in the labor force of the Bridgeport Labor Market.

RECENT AND ANTICIPATED FUTURE EMPLOYMENT ACTIVITIES:

B-5.1 Recent Employment Activities: The City has experienced very little turnover of full-time employees who are not appointed and not elected.

Future recruitment activities will also include contacting the following:

- TEAM
- NAACP
- Placement Offices at: South Central Community College, Housatonic Community College, University of New Haven, Sacred Heart University, Southern

Connecticut State University, Fairfield University, University of Connecticut and Yale University.

B-5.2 Anticipated Future Employment Activities: Future employment activities for non-appointed and non-elected positions are generated from two (2) primary sources: (1) resignation or retirement of employees holding present positions and (2) establishment of new positions.

As stated above, the City of Derby has experienced very little turnover in personnel. If a turnover does occur, it is usually a result of retirement. Projecting possible turnover resulting from individuals leaving the City's employment for another job is difficult. Based upon past experience, a liberal estimate is five (5) employees over the next five (5) year period.

Because of the tight local budget constraints, only one new position paid from the City's budget is anticipated within the next two (2) years. Over the next five (5) years, perhaps a total of three (3) new positions might be established.

B-6. Job Training:

B-6.1 Training: The City does not have a formalized training program, nor is it presently equipped to provide such a program. This is primarily a result of the fact that the government of the City of Derby (as is true in most small municipalities) consists of a considerable number of separate units or departments performing a particular specialized function or functions. With the exception of perhaps three (3) departments, each separate unit employs a relatively small number of persons. Organizing a formalized training program designed to train a significant number of employees would be expensive and probably ineffective.

Most employee training is on-the-job training. In addition, the City does encourage, and provides appropriate reimbursement for employees to attend special seminars, courses or conferences offered by various governmental and quasi-public agencies or organizations.

In addition, the City will conduct informal training sessions at which time the Mayor, or his designee will present Equal Employment Opportunity materials to those in attendance. The City will provide sexual harassment training for its supervisors and will continue to provide new supervisors with such training as well as periodic updated sexual harassment training for all supervisors.

PART C: PROGRAM FOR AFFIRMATIVE ACTION

C-1. Policy: It is the policy of the City of Derby to provide for the equal opportunity of all employees or applicants for employment regardless of race, color, religion, age, sex, sexual orientation, marital status, national origin, ancestry, present or past history of mental disease, mental retardation, learning disability or other disability. The City will take affirmative action to ensure that applicants are employed, and that employees are treated, during employment, without regard to their race, color, religion, age, sex

sexual orientation, marital status, national origin, ancestry, present or past history of mental disease, learning disability or other disability, including blindness.

C-2. Equal Employment Officer: The Mayor of the City of Derby is designated the Equal Employment Officer for the City with ultimate responsibility for implementing the program activities identified herein, as well as other activities identified in the future as being appropriate to protecting the equal opportunity of individuals. The Mayor may, from time to time, delegate the responsibility for carrying out some or all of such activities to other municipal personnel.

C-3. Employment Goals: The following is an identification of affirmative action employment goals of the City of Derby to be attained by March 1, 2007.

C-3.1 Minority Employment – Permanent, Full-Time: To increase minority participation in the City's permanent, full-time employment positions so that the percent of African-Americans and Hispanics employed by the City more closely approximates the level of minority participation in the labor force of the Bridgeport Labor Market.

C-3.2 Minority Employment – Part-Time: To implement a program designed to provide for minority participation in the City's part-time positions so that the percent of minorities so employed more closely approximates the level of minority participation in the labor force of the Bridgeport Labor Market.

C-3.3 Female Employment: To maintain female participation in the City's employment, and whenever feasible and appropriate, to increase such participation.

C-4. Employee Recruitment: The City of Derby believes that the most effective way to increase minority employment is through expanded efforts to recruit minority applicants by publicizing job openings with community minority and women's organizations, agencies, secondary schools and colleges and to advertise job openings in African-American and Spanish-language newspapers. Toward that end, the following are affirmative action measures to be included in the City's employee recruitment program:

C-4.1 Advertisements: Include in all advertisements or solicitations for employment, placed by or on behalf of the City, a statement that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, ancestry, sexual orientation, marital status, present or past history of mental disorder, or disability.

C-4.2 Distribution of Advertisement: Publish advertisements in the New Haven Register and/or Connecticut Post (two newspapers with general circulation in the City) and send job postings to the Connecticut Unemployment Office, local schools and universities, identified local poverty agencies and community groups, which may be of assistance with the recruitment of minority and female applicants. **All advertisements for City job positions shall contain the designation "EEO/M/F/D/V" or other language indicating that the City is an equal opportunity employer.**

C-4.3 Walk-In Applicants: Maintain continuous record of walk-in applicants interested in employment with the City, even if no job openings are available at the time that such applicants appear. Applications will be held for a one-year period and reviewed every six months.

C-5. Other Employment Actions: Other affirmative actions related to employment are to include the following:

C-5.1 Distribution of Plan: Distribution of a copy of the City's Affirmative Action Program to each Department in the City so that each Department head is aware of the City's Affirmative Action Program;

C-5.2 Posting: Posting of the City's Equal Employment Opportunity Policy and Policy Against Sexual Harassment and Discrimination in conspicuous places, and distributing same to all current employees and new hires

The postings of the above policies will be accomplished by December 31, 2006 and will be reviewed on an annual basis. Reviews will be completed by the Mayor or his designee. Deadline for completion of the review process will be December 31st of each year.

C-5.3 Internal Complaint Procedure: Applicants for employment and employees may notify in writing or discuss with the Equal Employment Officer, or his designated agent, past or potential problems of discrimination, either deliberate or thoughtless, which may arise in the course of recruitment, recruitment advertising, employment, upgrading, demotion, transfer, layoff, termination, rates of pay and other forms of compensation, selection for training and apprenticeship. The Mayor, or his designee, shall promptly and thoroughly investigate all complaints, and if a violation of this policy or the law is found, appropriate corrective action shall be taken to end the discrimination and to reassure such individuals of the City's desire and ability to take necessary and appropriate corrective actions.

C-5.4 Job Evaluation: Evaluation of activities and skills required of particular positions to determine if positions or groups of positions which have traditionally attracted male applicants and been filled predominantly by males might more feasibly include participation of the opposite sex.

Department heads will evaluate job descriptions for their respective departments on an annual basis. The deadline for the submission of job evaluations to the Office of the Mayor shall be November 1st of each year or at least four (4) months prior to the expiration of an applicable collective bargaining agreement.

C-5.5 Training: The Mayor, or his designee, shall conduct informal training sessions for supervisors on an annual basis at which time Equal Employment Opportunity materials shall be presented.

C-6. Contracts: In support of its policy to assure equal employment opportunity, the City will require that all contracts subject to Executive Order 11246 will incorporate the

statement identified in Par. C-6.1 and that other contracts for construction of improvements negotiated by the City, excluding contracts for standard commercial supplies and raw materials, will include the statement identified in Par. C-6.2.

C-6.1 Statement for Contracts Subject to "Executive Order 11246"

Equal Employment Opportunity: During the performance of this Contract, the contractor agrees as follows:

- a) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the City of Derby setting forth provisions of this nondiscrimination clause.
- b) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
- c) The contractor will send to each labor union or representative of workers with which the contractor has a collective bargaining agreement or other contract or understanding, a notice, to be provided, advising the labor union or workers' representative of the contractor's commitments under Section 202 of Executive Order 11246 of September 24, 1965 and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- d) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- e) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor or the Secretary of Housing and Urban Development pursuant thereto, and will permit access to the contractor's books, records, and accounts by the City of Derby, the Secretary of Housing and Urban Development, and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.
- f) In the event of the contractor's noncompliance with the nondiscrimination clauses of this section, or with any of the said rules, regulations, or orders, this Agreement may be cancelled, terminated, or suspended in whole or in part and

the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

- g) The contractor will include the provisions of Paragraphs (a) through (g) of this Section in every contract or purchase order, and will require the inclusion of these provisions in every subcontract entered into by and of its contractors, unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each such contractor, subcontractor, or vendor, as the case may be. The Contractor will take such action with respect to any construction contract, subcontract, or purchase order as the City of Derby or the Department of Housing and Urban Development may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the City of Derby or the Department of Housing and Urban Development, the Contractor may request the United States to enter into such litigation to protect the interests of the United States. (Sec. 202 amended by EO 11375 of Oct. 13, 1967, 32 FR 14303, 3 CFR, 1966-1970 Comp., p. 684, EO 12086 of Oct. 5, 1978, 43 FR 46501, 3 CFR, 1978 Comp., p. 230)

C-6.2 Other City Construction Contracts:

Equal Employment Opportunity: During the performance of this Contract, the contractor agrees as follows:

- a) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. The contractor will take affirmative action to insure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment, or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this non-discrimination clause.
- b) The contractor will, in all solicitation or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

C-7 Record Keeping: Accurate records shall be maintained showing, for each fiscal year, the number of persons hired, promoted and laid off or otherwise terminated for each job position by sex and race. In addition, records shall be maintained regarding the number of applicants for hire and promotion by sex and for promotions by race and/or national origin.

C-8 Annual Review: The Mayor shall annually review the progress of the affirmative action plan in recruiting and hiring qualified minority candidates and if necessary, modify and update the affirmative action plan.

Anthony Staffieri
Mayor – City of Derby

Adopted by the Board of Aldermen: February 22, 2007

SECTION 00890

PERMITS

PART 1 – GENERAL

1.01 DESCRIPTION:

This Section provides specific information and defines specific requirements of the Contractor regarding the preparation and acquisition of permits required to perform the work of this project.

1.02 RELATED WORK:

Not Used

1.03 GENERAL REQUIREMENTS:

- A. The Owner has obtained or will obtain and pay for the permits listed below, which are required for this project: The Contractor shall assist in obtaining certain permits, as indicated. The Contractor shall obtain and pay for all other permits required, as defined under the Permits subsection of Section 00700, GENERAL CONDITIONS. Owner will submit Army Corp of Engineers Self-Verification Notification Form upon notice to proceed.

Permits By Owner	Status
None	

- B. The Contractor shall obtain and pay for the permits listed below, which are required for this project. The Contractor shall obtain and pay for all other permits required, as defined under the Permits subsection of Section 00700, GENERAL CONDITIONS.

Permits By Contractor	Status
CTDOT Encroachment Permit, only if work is on state roads. See plans.	*

*Contractor shall prepare permit applications and obtain all permits after the contract is awarded.

PART 2 - PRODUCTS

Not Used.

PART 3 – EXECUTION

3.01 PERFORM WORK IN ACCORDANCE WITH REQUIREMENTS:

- A. The Contractor shall perform the work in accordance with the Contract Documents, including the attached permits/order of conditions, and any applicable municipal requirements.
- B. Prior to commencing any construction activities, the Contractor shall demonstrate to the Owner and the Engineer, through on-site inspection and submitting copies of permits or approvals, that it is in full compliance with the terms and conditions of all permits specified herein. The Contractor shall maintain full compliance with all permits throughout the performance of the work, and upon request, grant access to permitting authorities to inspect the site for the purpose of verifying such compliance.

END OF SECTION

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SECTION 01014

SCOPE AND SEQUENCE OF WORK

PART 1- GENERAL

1.01 WORK INCLUDED:

- A. This Section of the specifications covers the scope and sequence of work for the “Sanitary Sewer Rehabilitation Project: Phase 4” in the City of Derby, Connecticut.
- B. The Contractor shall furnish all labor, materials, equipment, and incidentals required to complete the work as shown on the drawings and as specified herein.
- C. Sewer system rehabilitations include:
 - 1. Lining of sewer mains (manhole to manhole) to repair and seal multiple cracks and holes which are leaking or have the potential to leak, and to reinstate and grout seal service connections (refer to Sections 02428 and 02443);
 - 2. Manhole lining shall be performed at the locations indicated on the Contract drawings in accordance with Section 02435;
 - 3. Lateral lining shall be performed at the locations indicated on the Contract drawings in accordance with Section 02436.

1.02 RELATED WORK:

- A. SECTION 01110 - CONTROL OF WORK AND MATERIALS

PART 2 – PRODUCTS – NOT APPLICABLE

PART 3 - EXECUTION

3.01 SEQUENCE OF WORK:

- A. Cleaning and inspecting shall be performed prior to all other pipeline rehabilitation work in each segment of sewer (manhole to manhole).
- B. Lining (manhole to manhole).
- D. All work may be scheduled at the Contractor’s discretion within the time of contract so long as it adheres to this scope and sequence of work and all plans and specifications. The schedule is also subject to approval by the Engineer.

END OF SECTION

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SECTION 01110

CONTROL OF WORK AND MATERIALS

PART 1 – GENERAL

Not Used.

PART 2 – PRODUCTS

Not Used

PART 3 - EXECUTION

3.01 HAULING, HANDLING AND STORAGE OF MATERIALS:

- A. The Contractor shall, at its own expense, handle and haul all materials furnished by it and shall remove any of its surplus materials at the completion of the work.
- B. The Contractor shall provide suitable and adequate storage for equipment and materials furnished by it that are liable to injury and shall be responsible for any loss of or damage to any equipment or materials by theft, breakage, or otherwise.
- C. All excavated materials and equipment to be incorporated in the Work shall be placed so as not to injure any part of the Work or existing facilities and so that free access can be had at all times to all parts of the Work and to all public utility installations in the vicinity of the work. Materials and equipment shall be kept neatly piled and compactly stored in such location as will cause a minimum of inconvenience to public travel and adjoining owners, tenants and occupants.
- D. The Contractor shall be responsible for all damages to the work under construction during its progress and until final completion and acceptance even though partial payments have been made under the Contract.

3.02 EASEMENTS:

- A. As indicated on the drawings, the work is located in easements obtained by the Owner. The Contractor has no rights outside of the easements unless they are obtained from the property owner.
- B. Contractor shall schedule work so that it will cause minimum inconvenience and nuisance to abutting property owners, over the shortest possible time.
- C. Easements shall be kept clean; no rubbish or discarded construction materials shall be allowed to accumulate. Storage of excess construction materials, including soil, ledge, equipment, or machinery on easements will not be allowed.

- D. Restoration of fences, shrubs, trees and grass shall be completed promptly following completion of the work in an easement, to minimize disruption and inconvenience to property owners.
- E. Unless approved by the Engineer, the use of easements for ease of access to and egress from other areas of the project will not be permitted.

3.03 OPEN EXCAVATIONS:

- A. All open excavations shall be adequately safeguarded by providing temporary barricades, caution signs, lights and other means to prevent accidents to persons, and damage to property. The Contractor shall, at its own expense, provide suitable and safe means for completely covering all open excavations and for accommodating travel when work is not in progress.
- B. Bridges provided for access to private property during construction shall be removed when no longer required.
- C. The length of open trench will be controlled by the particular surrounding conditions but shall always be confined to the limits prescribed by the Engineer.
- D. If the excavation becomes a hazard, or if it excessively restricts traffic at any point, then special construction procedures shall be taken, such as limiting the length of trench and prohibiting stocking excavated material in the street.
- E. All street excavations shall be completely closed at the end of each work day. Backfilling or use of steel plates of adequate strength to carry traffic shall be used.

3.04 MAINTENANCE OF TRAFFIC:

- A. Unless permission to close the street is received in writing from the proper authority, all excavated materials and equipment shall be placed so that vehicular and pedestrian traffic may be safely maintained at all times.
- B. Should the Chief of Police deem it necessary, uniformed officers will be assigned to direct traffic. The Contractor shall make all arrangements in obtaining uniformed officers required.
- C. The Contractor shall at its own expense, as directed by the Police Traffic Control/Safety Officer, provide and erect acceptable barricades, barrier fences, traffic signs, and all other traffic devices not specifically covered in a bid item, to protect the work from traffic, pedestrians, and animals. It shall provide sufficient temporary lighting such as lanterns/flashers (electric battery operated) or other approved illuminated traffic signs and devices to afford adequate protection to the traveling public, at no additional cost to the Owner.

- D. The Contractor shall furnish all construction signs that are deemed necessary by and in accordance with Part VI of the Manual on Uniform Traffic Control Devices as published by the U.S. Department of Transportation. In addition, the Contractor may be required to furnish up to 128 square feet of additional special construction warning signs. Size and exact wording of signs shall be determined by the Engineer during construction.
- E. The intent of policing is to ensure public safety by direction of traffic. Police officers are not to serve as watchmen to protect the Contractor's equipment and materials.
- F. Nothing contained herein shall be construed as relieving the Contractor of any of its responsibilities for protection of persons and property under the terms of the Contract.

3.05 CARE AND PROTECTION OF PROPERTY:

The Contractor shall be responsible for the preservation of all public and private property, and shall use every precaution necessary to prevent damage thereto. If any direct or indirect damage is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work on the part of the Contractor, such property shall be promptly restored by the Contractor, at its expense, to a condition similar or equal to that existing before the damage was done, to the satisfaction of the Engineer.

3.06 PROTECTION AND RELOCATION OF EXISTING STRUCTURES AND UTILITIES:

- A. All existing buildings, utilities, pipes, poles, wires fences, curbing, property line markers and other structures which the Engineer decides must be preserved in place without being temporarily or permanently relocated, shall be carefully supported and protected from damage by the contractor. Should such property be damaged, it shall be restored by the Contractor, at no additional cost to the Owner.
- B. The Contractor shall determine the location of all underground structures and utilities (including existing water services, drain lines, electrical lines, and sewers). Services to buildings shall be maintained, and all costs or charges resulting from damage thereto shall be paid by Contractor.
- C. When fences interfere with the Contractor's operations, it shall remove and (unless otherwise specified) promptly restore them in accordance with Section 01564 EXISTING FENCES.
- D. On paved surfaces the Contractor shall not use or operate tractors, bulldozers, or other power-operated equipment with treads or wheels which are shaped so as to cut or otherwise damage such surfaces.
- E. All property damaged by the Contractor's operations shall be restored to a condition at least equal to that in which it was found immediately before work was begun. Suitable materials and methods shall be used for such restoration.

- F. Restoration of existing property and structures shall be carried out as promptly as practicable and shall not be left until the end of the construction period.

3.07 MAINTENANCE OF FLOW:

- A. The Contractor shall at its own cost, provide for the flow of sewers and drains interrupted during the progress of the work, and shall immediately cart away and dispose of all offensive matter. The entire procedure of maintaining existing flow shall be fully discussed with the Engineer well in advance of the interruption of any flow.
- B. All existing drainage facilities including, but not limited to; brooks, streams, canals, channels, ditches, culverts, catch basins and drainage piping shall be adequately safeguarded so as not to impede drainage or to cause siltation of downstream areas in any manner whatsoever. If the Contractor damages or impairs any of the aforesaid drainage facilities, it shall repair the same within the same day.
- C. At the conclusion of the work, the Contractor shall remove all silt in drainage structures caused by its operations as described in Section 01740, CLEANING UP.

3.08 REJECTED MATERIALS AND DEFECTIVE WORK:

- A. Materials furnished by the Contractor and condemned by the Engineer as unsuitable or not in conformity with the specifications shall forthwith be removed from the work by the Contractor, and shall not be made use of elsewhere in the work.
- B. Any errors, defects or omissions in the execution of the work or in the materials furnished by the Contractor, even though they may have been passed or overlooked or have appeared after the completion of the work, discovered at any time before the final payment is made hereunder, shall be forthwith rectified and made good by and at the expense of the Contractor and in a manner satisfactory to the Engineer.
- C. The Contractor shall reimburse the Owner for any expense, losses or damages incurred in consequence of any defect, error, omission or act of the Contractor or its employees, as determined by the Engineer, occurring previous to the final payment.

3.09 SANITARY REGULATIONS:

Sanitary conveniences for the use of all persons employed on the work, properly screened from public observation, shall be provided in sufficient numbers in such manner and at such locations as may be approved. The contents shall be removed and disposed of in a satisfactory manner as the occasion requires. The Contractor shall rigorously prohibit the committing of nuisances within, on or about the work. Any employees found violating these provisions shall be discharged and not again employed on the work without the written consent of the Engineer. The sanitary conveniences specified above shall be the obligation and responsibility of the Contractor.

3.10 SAFETY AND HEALTH REGULATIONS:

This project is subject to the Safety and Health regulations of the U.S. Department of Labor set forth in 29 CFR, Part 1926, and to the Connecticut Department of Labor Division of Occupational Safety and Health (CONN-OSHA). Contractors shall be familiar with the requirements of these regulations.

3.11 SITE INVESTIGATION:

The Contractor acknowledges that it has satisfied itself as to the conditions existing at the site of the work, the type of equipment required to perform this work, the quality and quantity of the materials furnished insofar as this information is reasonably ascertainable from an inspection of the site, as well as from information presented by the drawings and specifications made a part of this contract. Any failure of the Contractor to acquaint itself with available information will not relieve it from the responsibility for estimating properly the difficulty or cost of successfully performing the work. The Owner assumes no responsibility for any conclusion or interpretation made by the Contractor on the basis of the information made available by the Owner.

3.12 HANGERS, PADS, AND SUPPORTS:

- A. Unless otherwise indicated, hangers and supports shall be by the trade providing the supported item.
- B. Except where detailed or specified, design of hangers and supports shall be the responsibility of the Contractor. All parts of such hangers or supports shall be designed in accordance with accepted engineering practice, using a factor of safety of at least 2½.
- C. When proprietary hangers, etc., are supplied, satisfactory evidence of the strength of such items shall be furnished.
- D. Hangers for items hung from steel and concrete shall be centered on the vertical center of gravity of the beam.
- E. Locations and sizes of openings, sleeves, concrete pads, steel frames, and other equipment supports are indicated on the drawings for bidding purposes only. Final sizes and locations of such items shall be obtained from the shop drawings.

3.13 SLEEVES, HOLES, HANGERS, INSERTS, ETC.:

- A. Except where holes and openings are dimensioned, and hangers, inserts, and supports are fully called for on the architectural and structural drawings (or reference is made thereon to drawings containing such information) to accommodate mechanical or electrical items, they shall be by the mechanical or electrical trade concerned.
- B. Sleeves, inserts, anchors, etc., supplied under the mechanical and electrical contracts in sufficient time to so permit, shall be set in concrete, masonry, etc., or fastened to steel

deck, etc., by the respective architectural or structural trade. Where not supplied in sufficient time, installation of such items shall be the responsibility of the mechanical or electrical trade involved.

- C. Nothing shall be suspended from the steel roof deck and no fastenings made to it, except with the prior permission of the Engineer. Request for permission shall be accompanied by full details of the hanger or fastener, including the weight of the item to be suspended.
- D. Nailers and other wood members attached to steel or masonry, for which fasteners are not indicated on the design drawings or in the specification, shall be fastened with the equivalent of ½-inch diameter bolts at 3 feet o.c.
- E. Openings for mechanical and electrical items in finished areas of the building shall be closed off with near escutcheon plates or similar closures. These closures shall be by the mechanical or electrical trade involved.

3.14 ROOF PROTECTION:

Where work must be performed over completed roofing, the roofing shall be protected by 2 layers of ½-inch thick plywood, laid with joints in the second layer offset 1/2 sheet width and length from joints in the first layer. No material shall be stored or work performed on areas of roof which are not so protected.

3.15 WEATHER PROTECTION:

The Contractor shall install weather protection and shall furnish adequate heat in the area so protected during the months of November through March.

3.16 ELECTRIC SERVICE:

- A. The Contractor shall make all necessary applications and arrangements and pay for all fees and charges for electrical energy for power and light necessary for the proper completion of this contract during its entire progress. The Contractor shall provide and pay for all temporary wiring, switches, connections, and meters.
- B. There shall be sufficient electric lighting so that all work may be done in a workmanlike manner where there is not sufficient daylight.

END OF SECTION

SECTION 01140

SPECIAL PROVISIONS

PART 1 - GENERAL

Not used

PART 2 - PRODUCTS

Not used

PART 3 - EXECUTION

3.01 WATER FOR CONSTRUCTION PURPOSES:

- A. The express approval from the local water company shall be obtained before water is used. Contractor shall provide water meter and backflow device as required. Contractor shall supply water at no additional cost to the Owner.

3.02 PIPE LOCATION:

Pipe shall be located substantially as indicated on drawings. The Owner reserves the right, acting through the Engineer, to make such modifications as may be deemed desirable to avoid interference with existing structures or for other reasons.

3.03 DIMENSIONS OF EXISTING STRUCTURES:

Where the dimensions and locations of existing structures are of critical importance in the installation or connections of new work, the Contractor shall verify such dimensions and locations in the field before the fabrication of any material or equipment that is dependent on the correctness of such information.

3.04 OCCUPYING PRIVATE PROPERTY:

The Contractor shall not enter upon nor occupy with men, equipment or materials any property outside of the public highways or Owner's easements, except with the written consent of the property owner or property owner's agent.

3.05 EXISTING UTILITY LOCATIONS – CONTRACTOR'S RESPONSIBILITY:

- A. The location of existing underground services and utilities shown on the drawings is based on available records. It is not warranted that all existing utilities and services are shown, or that shown locations are correct. The Contractor shall be responsible for having the utility companies locate their respective utilities on the ground prior to excavating.

- B. To satisfy the requirements of Connecticut law, the Contractor shall, at least 72 hours, exclusive of Saturdays, Sundays and holidays, prior to excavation in the proximity of telephone, gas, cable television and electric utilities, notify the utilities concerned by calling "CALL BEFORE YOU DIG" at telephone number: 1-800-922-4455.
- C. The Contractor shall coordinate all work involving utilities and shall satisfy itself as to the existing conditions of the areas in which it is to perform its work. It shall conduct and arrange its work so as not to impede or interfere with the work of other contractors working in the same or adjacent areas.

3.06 COORDINATION OF WORK:

The General Contractor shall be responsible for coordinating its own work as well as that of any subcontractors. He shall be responsible for notification of the Engineer when each phase of work is expected to begin and the approximate completion date.

3.07 TIME FOR COMPLETION OF CONTRACT:

The time for completion of this contract is stipulated in the Form of General Bid. The Bidder shall base its bid on completing the proposed work by the completion date stipulated in Section 00410, FORM OF GENERAL BID/FORM FOR GENERAL BID.

3.08 MAINTENANCE OF TRENCH SURFACE:

After backfilling and compacting the trench, the Contractor shall be responsible for keeping the ground surface dry and passable at all times until the surface has been restored to original conditions.

3.09 DESIGN OF EQUIPMENT:

Attention is directed to the fact that the layout of certain equipment is based on that of one manufacturer. If other equipment is submitted for approval, the Contractor shall prepare and submit for approval at its expense, detailed structural, mechanical and electrical drawings, equipment lists, maintenance requirements, and any other data required by the Engineer, showing all necessary changes and embodying all special features of the equipment he proposes to furnish. Such changes, if approved, shall be made at the expense of the Contractor.

3.10 SERVICES OF MANUFACTURER'S REPRESENTATIVE:

- A. The Contractor shall arrange for a qualified service representative, at a time suitable to the Engineer, from the company manufacturing or supplying certain equipment as indicated on the detailed specifications, to perform the duties described herein.
- B. After installation of the listed equipment has been completed and the equipment is presumably ready for operation, but before others operate it the representative shall

inspect, operate, test, and adjust the equipment. The inspection shall include, but shall not be limited to, the following points as applicable:

1. Soundness (without cracks or otherwise damaged parts); completeness in all details, as specified; correctness in setting, alignment, and relative arrangement of various parts; adequacy and correctness of packing, sealing and lubricants.
2. The operation, testing, and adjustment shall be as required to prove that the equipment is left in proper condition for satisfactory operation under the conditions specified. Where called for in the specifications, vibration readings shall be made and the equipment balanced accordingly.
3. On completion of its work, the Contractor shall submit in triplicate to the Engineer the manufacturer's or supplier representative's complete signed report of the results of its inspection, operation, adjustments, and test. The report shall include detailed descriptions of the points inspected, tests and adjustments made, quantitative results obtained if such are specified, and suggestions for precautions to be taken to ensure proper maintenance. The report shall also include a certificate that the equipment conforms to the requirements of the contract and is ready for permanent operation and that nothing in the installation will render the manufacturer's warranty null and void.
4. After the Engineer has reviewed the reports from the manufacturer's representative, the Contractor shall make arrangements to have the manufacturer's representative present when the field acceptance tests are made.

3.11 COMPLIANCE WITH PERMITS:

- A. The Contractor shall perform all work in conformance with requirements of the Permits, which appear in Section 00890 – PERMITS.

3.12 CUTTING, FITTING AND PATCHING:

- A. The Contractor shall do all cutting, fitting, or patching of its work that may be required to make its several parts come together properly and fit it to receive or be received by work of other Contractors, as shown upon or reasonably implied by the drawings and the specifications for the completed structure, including all existing work.
- B. The Contractor shall not endanger any work by cutting, digging, or otherwise and shall not cut or alter the work of any other Contractor, save with the consent of the Engineer.
- C. All holes or openings required to be made in new or existing work, particularly at pipe, conduit, or other penetrations not covered by escutcheons or plates shall be neatly patched. All such holes shall be made completely watertight as approved by the Engineer.

- D. Size and locations of holes required in steel, concrete, or other structural or finish materials for piping, wiring, ducts, etc., which have not been located and detailed on the drawings shall be approved by the Engineer prior to layout and cutting thereof. All holes shall be suitably reinforced as required by the Engineer.
- E. Workmanship and materials of patching and repair work shall match the adjacent similar work and shall conform to the applicable sections of the specification. Patches and joints with existing work shall provide, as applicable in each case, visual, structural, and waterproofing continuity.

3.13 CONNECTIONS TO EXISTING WATER SYSTEMS:

- A. The Owner will, upon 24-hour notice from the Contractor, assist the Contractor by locating and opening or closing any and all valves required for draining or admitting water to the various sections of the water main as required to perform the proposed work. No damages shall be claimed by the Contractor for delays in dewatering pipelines nor shall any damages be claimed because of water leaking through closed valves after dewatering is completed.
- B. Connections to the existing distribution system shall be made with the mains under pressure unless the lines can be temporarily taken out of service as approved by the Owner.
- C. The Contractor will be required to make test excavations to ascertain that the proposed position of the connections will be clear of joints, fittings, or other obstructions.
- D. If any failure occurs in connection to existing mains, service shall be restored in the shortest possible time, the Contractor working around the clock, if necessary. He shall cooperate with the Owner in notifying the consumers or supplying emergency water. If required by Owner, the Contractor shall make connections to water mains during night hours, on Sunday or at other times of off-peak demand for water.

3.14 CONTRACTOR'S REPRESENTATIVE:

The Contractor shall designate a representative who will be available to respond to emergency calls by the Owner at any time day and night and on weekends and holidays should such a situation arise.

3.15 VISUAL RECORDING:

Before beginning construction, the Contractor shall make a color DVD recording along the entire work length. One complete recording, for the entire project length, shall be furnished to the Engineer prior to the start of the work. The visual recording shall be identified by street name, as applicable, and station.

3.16 HOURS OF CONSTRUCTION ACTIVITY:

- A. The Contractor shall conduct all construction activity between 8:00 a.m. and 5:00 p.m., Monday through Friday. No construction work shall be allowed on Saturdays, Sundays or Holidays without written authorization from the Owner.
- B. The Owner will provide personnel for assistance in locating and operating valves at no cost to the Contractor during the Owner's normal working hours (Monday through Friday 7:00 a.m. to 3:00 p.m.). When this assistance is required by the Contractor outside of the Owner's normal working hours the cost will be incurred by the Contractor at the prevailing overtime rate of pay for the personnel providing the assistance. The Owner will bill the Contractor directly.
- C. Night work will be allowed between the hours of 7:30 p.m. and 5:00 a.m.

3.17 CONSTRUCTION CREWS:

The Contractor shall not increase the number of construction crews assigned to the work without providing one-week advance notice to the Engineer.

3.18 EXTENSION OF UTILITIES TO SITE:

The Contractor shall directly pay the cost of extending electric and gas service to the site. Contractor shall be fully responsible for coordinating the work with the individual utilities.

3.19 WINTER WORK:

The Owner will allow the Contractor to work within the public ways on this Project during the winter months. The Contractor shall obtain a road-opening permit for the State Highway for winter work. All conditions of the road-opening permit apply to any work performed in the State Highway irrespective of the requirements presented herein.

The Contractor will be required to backfill all excavations at the end of each work day, or place Jersey barriers around open excavations.

The Owner has agreed to provide snow removal services on all public ways affected by this Project. The Owner will not remove snow from the Contractor's work area that the public will not be using for either driving or pedestrian activity.

The Contractor will provide snow removal services on any public way affected by its work that has been authorized by the Owner to be closed to through traffic. Snow will be plowed in accordance with the Owner's normal plowing schedule for the closed public ways.

In no event will the Owner remove snow on any private way affected by the Contractor's work on this Project. The Contractor may coordinate snow removal activities with

whoever provides these services for the owners of the private way(s).

3.21 UTILITY REBATES:

The Contractor shall solicit from the power company for any available energy rebates on eligible electrical and gas systems and equipment furnished and installed for this Project. All necessary forms and technical information needed to secure the rebates shall be prepared by the Contractor/Electrical Contractor and submitted to the power company with copies sent to the Owner/Engineer. One hundred percent of the rebates shall be issued directly to the Owner.

END OF SECTION

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SECTION 01270

MEASUREMENT AND PAYMENT

PART 1 - DESCRIPTION

1.01 GENERAL:

- A. The following subsections describe the measurement of and payment for the work to be done under the items listed in Section 00410 FORM OF GENERAL BID.
- B. All work performed as described in these contract documents will be paid for under one or more of the items listed in the FORM OF GENERAL BID. All other activities required in connection with performance of the work, including all work required under Division 1, GENERAL REQUIREMENTS, whether described in the contract documents or mandated by applicable codes, permits and laws, will not be separately paid for unless specifically provided for in the form of general bid, but will be considered incidental to performance of the overall project.
- C. Each unit or lump-sum price stated in the FORM OF GENERAL BID shall constitute full compensation as herein specified for each item of work completed in accordance with the drawings and specifications.
- D. The payment items listed herein and in the FORM OF GENERAL BID are intended to provide full payment for the work shown on the drawings and specified herein. Any work called for or implied in the documents but not listed as a payment item shall be considered incidental to the overall project.
- E. Unless otherwise noted, each item shall be furnished and installed in accordance with the technical section whether a specific applicable payment item exists or not.
- F. Unless otherwise noted, all earthwork shall be included under any item requiring excavation. The prices for those items that involve excavation shall include compensation for disposal of surplus excavated material, and installation of all necessary sheeting and bracing.
- G. In all items involving excavation, the price shall be based on doing the entire excavation in earth. Where rock is excavated, the price therefore shall be in addition to the cost of excavating earth and no deduction shall be made in the amount for earth excavation.
- H. The price for all pipe items for sewers, wyes, tees, building connections, service connections, and other pipelines shall constitute full compensation for furnishing, laying, jointing, and testing pipe; earth excavation and backfill; dewatering; crushed stone bedding; sidewalk replacement; curbing replacement; paving; loaming and seeding and cleaning up.

1.02 BID ITEM 1 – CURED-IN-PLACE LINE PIPE (CIPP):

A. General:

1. The work of this item shall be measured at the unit price bid per linear foot of lined pipe. Lined pipe shall be measured as the actual length of cured-in-place pipe installed and shall be the shortest distance from the inside edge of the inversion manhole to the inside edge of the tail manhole.
2. The contract unit price to be paid per linear foot of cured-in-place pipe installed shall constitute full compensation for supplying all material, labor, tools, and equipment to install cured-in-place pipe as specified in Section 02428, CURED-IN-PLACE PIPE.
3. Work required to prepare the pipe for CIPP, including cleaning (up to 4 passes of mechanical or hydraulic cleaning technology) and Pre CCTV inspection, shall be considered incidental to the work and shall not be measured separately for payment.
4. All reinstated service connections shall be grouted. Reinstating and grouting services connections shall be measured for payment, per each service connection reinstated and grouted, and paid for under Bid Item 1d.
5. Bypass pumping and plugging or blocking of sewer flow shall be considered incidental to the work and shall not be measured separately for payment.
6. Cleaning and pre- and post-CCTV inspection of relined sewer pipes, if required by the Contract Documents, shall be considered incidental to the work and shall not be measured separately for payment.
7. Capture and disposal of cure water shall be considered incidental to the work and shall not be measured separately for payment.
8. The work shall be paid for at the contract unit price under Item 1a and 1b.

1.03 BID ITEM 2 – SEWER MANHOLE REHABILITATION:

A. CEMENTITIOUS LINING OF MANHOLES:

1. The work of this item shall be measured at the unit price bid per vertical foot of manhole actually lined, which shall be measured from top of manhole bench to bottom of manhole frame.
2. The contract unit price per vertical foot of manhole to be paid shall constitute full compensation for supplying all material, labor, tools, and equipment required to

line the manhole as specified in Section 02435, SEWER MANHOLE REHABILITATION. Cementitious lining includes invert sealing, exterior chemical grouting, and interior sealing.

3. Bypass pumping and plugging or blocking of sewer flow shall be considered incidental to the work and shall not be measured separately for payment.

The work under this section shall be paid at the contract unit price under Item 2.

1.04 BID ITEM 3 – CIPP LATERAL LINER:

A. Cured-in-Place Lateral Liner Initial Five (5) Linear Feet from Mainline:

1. The work of this item shall be measured at the unit price bid per 4-inch diameter, 5-inch diameter, or 6-inch diameter cured-in-place lateral liner from the mainline to five (5) linear feet up the lateral. Cured-in-place lateral liners from the mainline pipes shall include a full wrap at the mainline at its respective diameter.
2. Measurement, including all material, labor, tools, and equipment shall be based on the actual number of laterals lined as determined by the Engineer. Cured-in-place lateral liners shall be installed as specified in Section 02436, CURED-IN-PLACE LATERAL LINER.
3. The Contractor is responsible for measuring the length of liner to be installed. Measurement of the liner to be installed shall be considered incidental to the work and shall not be measured separately for payment.
4. Pre- and post-cleaning and inspection of the lateral shall be considered incidental to the work and shall not be measured separately for payment.
5. The work shall be paid for at the contract unit price under Item 3.

1.05 BID ITEM 4 – UNIFORMED OFFICERS:

- A. The allowance under this item shall be utilized as payment for charges incurred by the local traffic authority for the services of uniformed officers. The allowance shall include administration charges required by the police.
- B. Payment will be made based on invoices submitted by the traffic authority to the Contractor. No Mark-up will be allowed. The Contractor shall review said invoices for accuracy and forward copies of same to the Engineer and include the cost in his Application for Payment. Actual payment to the traffic authority shall be made by the Contractor and the Contractor shall be reimbursed by the Owner through the monthly applications for payment.

- C. The Contractor shall provide four-hour notification of cancellation or as required by the traffic authority.
- D. The Contractor shall be responsible for scheduling all uniformed officers as required to complete the work in a safe manner.
- E. PUBLIC SAFETY AND TRAFFIC PROTECTION:
 - 1. The Contractor shall provide all road construction warning signs, traffic cones, barriers and other devices required to provide for the safe passage of traffic in construction areas, including provisions for alternating one-way traffic, and any additional signage required by the CTDOT, local and state police departments. Suitable ingress and egress shall be provided at all times for all intersecting roads and for all driveways. This work shall not be separately measured for payment but shall be considered incidental to the project.
- F. The work under this section shall be paid from the allowance under Item 4.

1.06 BID ITEM 5 – MOBILIZATION:

The lump sum for this item shall constitute full compensation to the Contractor for the general mobilization necessary to make the contract operational, exclusive of the cost of materials. The total for mobilization shall not exceed 5 percent of the total of all bid items excluding this item. The work under this section shall be paid at the contract unit price under Item 5.

1.07 SEWER MAINLINE AND LATERAL EQUIPMENT TESTING:

The work of this section shall not be separately measured for payment but shall be considered incidental to the project.

1.08 GROUNDWATER MONITORING:

The work for this section shall include the installation and removal of groundwater monitoring gauges and taking all required readings of the gauges. This work shall not be measured separately for payment but shall be considered incidental to the project.

1.09 HANDLING EXISTING FLOWS:

Handling existing sewage flows in accordance with the specifications, including providing, installing, and removing all required equipment, piping, and pumping as required shall not be measured separately for payment, but shall be considered incidental to the project.

1.10 SURFACE RESTORATION:

- A. The work for surface restoration shall include loaming and seeding and all incidentals thereto for all disturbed areas. This work shall not be separately measured for payment but shall be considered incidental to the project.
- B. Any existing fences which are required to be removed and reset shall not be separately measured for payment but shall be considered incidental to the project.

1.11 ENVIRONMENTAL PROTECTION:

The work of this section shall not be separately measured for payment but shall be considered incidental to the project.

1.12 SIGNAGE:

The work of this section shall not be separately measured for payment but shall be considered incidental to the project.

1.13 LOAMING AND SEEDING:

The work of this section shall not be separately measured for payment but shall be considered incidental to the project.

1.14 CCTV INSPECTION VIDEO TAPES:

CCTV inspection video tapes provided to the Owner shall not be separately measured for payment but shall be considered incidental to the project.

1.15 WARRANTY INSPECTION:

All warranty inspections and related work shall not be separately measured for payment but shall be considered incidental to the project.

END OF SECTION

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SECTION 01330

SUBMITTALS

PART 1 - GENERAL

1.01 WORK INCLUDED:

- A. The Contractor shall provide the Engineer with submittals as required by the contract documents.

1.02 RELATED WORK:

- A. Divisions 1 – 2 of these specifications that require submittals.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

3.01 GENERAL:

- A. As required by the General Conditions, Contractor shall submit a schedule of shop and working drawing submittals.
- B. The Contractor shall submit the shop and working drawing submittals either electronically or hard copy.

3.02 ELECTRONIC SUBMITTALS:

- A. In accordance with the accepted schedule, the Contractor shall submit promptly to the Engineer by email (TedeschiR@wseinc.com) or on Compact Disc (mail to Weston & Sampson Engineers), one electronic copy in Portable Document Format (PDF) of shop or working drawings required as noted in the specifications, of equipment, structural details and materials fabricated especially for this Contract.
- B. Each electronic copy of the shop or working drawing shall be accompanied by the Engineer's standard shop drawing transmittal form, included as Exhibit 1 of this section (use only for electronic submittals), on which is a list of the drawings, descriptions and

numbers and the names of the Owner, Project, Contractor and building, equipment or structure.

- C. The Contractor shall receive a shop drawing memorandum with the Engineer's approval or comments via email.

3.03 SHOP AND WORKING DRAWINGS:

- A. Shop and working drawings shall show the principal dimensions, weight, structural and operating features, space required, clearances, type and/or brand of finish of shop coat, grease fittings, etc., depending on the subject of the drawings. When it is customary to do so, when the dimensions are of particular importance, or when so specified, the drawings shall be certified by the manufacturer or fabricator as correct for this Contract.
- B. All shop and working drawings shall be submitted to the Engineer by and/or through the Contractor, who shall be responsible for obtaining shop and working drawings from his subcontractors and returning reviewed drawings to them. All shop and working drawings shall be prepared on standard size, 24-inch by 36-inch sheets, except those, which are made by changing existing standard shop or working drawings. All drawings shall be clearly marked with the names of the Owner, Project, Contractor and building, equipment or structure to which the drawing applies, and shall be suitably numbered. Each shipment of drawings shall be accompanied by the Engineer's (if applicable) standard shop drawing transmittal form on which is a list of the drawings, descriptions and numbers and the names mentioned above.
- C. Only drawings that have been prepared, checked and corrected by the fabricator should be submitted to the Contractor by his subcontractors and vendors. Prior to submitting drawings to the Engineer, the Contractor shall check thoroughly all such drawings to satisfy himself that the subject matter thereof conforms to the Contract Documents in all respects. Shop drawings shall be reviewed and marked with the date, checker's name and indication of the Contractor's approval, and only then shall be submitted to the Engineer. Shop drawings unsatisfactory to the Contractor shall be returned directly to their source for correction, without submittal to the Engineer. Shop drawings submitted to the Engineer without the Contractor's approval stamp and signature will be rejected. Any deviation from the Contract Documents indicated on the shop drawings must be identified on the drawings and in a separate submittal to the Engineer, as required in this section of the specifications and General Conditions.
- D. The Contractor shall be responsible for the prompt submittal and resubmittal, as necessary, of all shop and working drawings so that there will be no delay in the work due to the absence of such drawings.
- E. The Engineer will review the shop and working drawings as to their general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. Corrections or comments made on the drawings during the review do not relieve the Contractor from compliance with requirements of the Contract Documents. The Contractor is responsible for:

confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating his work with that of all other trades; and performing his work in a safe and satisfactory manner. The review of the shop drawings is general and shall not relieve the Contractor of the responsibility for details of design, dimensions, code compliance, etc., necessary for interfacing with other components, proper fitting and construction of the work required by the Contract and for achieving the specified performance. The Engineer will review submittals two times: once upon original submission and a second time if the Engineer requires a revision or corrections. The Contractor shall reimburse the Owner amounts charged to the Owner by the Engineer for performing any review of a submittal for the third time or greater.

- F. With few exceptions, shop drawings will be reviewed and returned to the Contractor within 30 days of submittal.
- G. No material or equipment shall be purchased or fabricated especially for this Contract nor shall the Contractor proceed with any portion of the work, the design and details of which are dependent upon the design and details of equipment or other features for which review is required, until the required shop and working drawings have been submitted and reviewed by the Engineer as to their general conformance and compliance with the project and its Contract Documents. All materials and work involved in the construction shall then be as represented by said drawings.
- H. Two copies of the shop and working drawings and/or catalog cuts will be returned to the Contractor. The Contractor shall furnish additional copies of such drawings or catalog cuts when he needs more than two copies or when so requested.

END OF SECTION

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EXHIBIT 1 TO SECTION 01330 SUBMITTALS

SHOP DRAWING TRANSMITTAL FORM

Instructions for Preparing Transmittal

No action will be taken on any item unless accompanied by this form.

Type or print all entries.

TRANSMITTAL NOS. To be consecutive (1, 2, 3, etc.).

Each resubmittal of same item shall use same number with suffix letter (A, B, etc.).

SPEC. SECT. NO: Only one spec. section no. to each transmittal.

DESCRIPTION: Complete identification of document or group of documents.

SOURCE: Originator of document(s) being submitted.

DRAWING NO: Identification of document(s).

NO. Of COPIES: Usually 6 or as directed/specified.

CONTRACT DRAWING REFERENCE: Contract drawing number(s) showing details of document(s) being submitted.

SPECIAL INSTRUCTIONS: Special cases and emergencies, changes in distribution and special handling requests, etc. should be entered here.

SINGATURE OF CONTRACTOR: Signature of individual who reviews and approves material prior to submittal to engineer.

Contractor to retain one copy.

THIS SECTION TO BE COMPLETED BY CONTRACTOR

TRANSM. NO.		SPEC. SECT. NO.		DATE	CONTRACTOR'S JOB NO.		WESTON & SAMPSON JOB NO.		
PROJECT NAME & CONTRACT NO.					LOCATION				
T O	Attention: Weston & Sampson 712 Brook Street, Suite 103 Rocky Hill, CT 06067			F R O M			TRANSMITTED VIA:		
	ITEM NO.	DESCRIPTION	SOURCE		DRAWING NO. CATALOG NO. BROCHURE, ETC.	NO. OF COPIES	CONTRACT DRAW REF.	By Weston & Sampson ACTION CODE REVIEWED BY	
	1								
	2								
	3								
	4								


THIS CERTIFIES THAT ALL ITEMS SUBMITTED HEREWITH HAVE BEEN CHECKED BY THE CONTRACTOR, ARE IN CONFORMANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, EXCEPT AS NOTED, AND ARE APPROVED BY THE CONTRACTOR FOR THIS PROJECT.

SPECIAL INSTRUCTIONS:

(FOR CONTRACTOR)

SIGNATURE
& TITLE:

THIS SECTION TO BE COMPLETED BY WESTON & SAMPSON

ACTION CODE 1 – NO EXCEPTIONS TAKEN 2 – MAKE CORRECTIONS NOTED 3 – AMEND AND RESUBMIT 4 – REJECTED – SEE REMARKS 5 – ACKNOWLEDGEMENT			a. INSTALLATION SHALL PROCEED ONLY WHEN ACTION CODE IS 1 OR 2 b. ACTION CODED 3 SHALL BE RESUBMITTED WITHIN TIME LIMIT SET IN CONTRACT. c. REVIEW DOES NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY OF COMPLIANCE WITH ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS.	FIELD OFFICE REC'D BY DATE	 _____ BY _____ DATE ____/____/____
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SECTION 01331
DOCUMENTATION

PART 1 – GENERAL

1.01 WORK INCLUDED:

- A. This section covers the requirements for documentation to be furnished by the Contractor on this project.

1.02 RELATED WORK:

- A. Section 02428, CURED-IN-PLACE PIPE

1.03 DOCUMENTATION:

- A. The Contractor shall maintain printed television inspection logs of sewer segments, for each sewer line segment undergoing repair/rehabilitation under this contract and provide one (1) copy of the logs within five (5) working days of the work being performed. Log sheet format shall be approved by Engineer prior to start of work.
- B. The log sheet(s) as a minimum shall clearly identify:
 - 1. Project Name
 - 2. Street Location, Name, Intersection, Station
 - 3. Date of inspection
 - 4. Total Length of Line Inspected
 - 5. Line Size(s)/Joint Spacing/Type
 - 6. Line and Manhole(s) Condition
 - 7. Significant observations such as service connections, offset joints, drop joints, broken/cracked pipe, protruding services, roots, collapsed sections, infiltration, presence of scale and corrosion and other discernible features.
 - 8. Filename.
- C. All logs shall be provided to the Engineer in PDF format (one log per PDF file) at the completion of the project.

- D. All television inspection shall be recorded in MPEG format and shall include accompanying audio. Inspections shall be recorded one at a time, with each segment recorded as a separate file. The Contractor shall provide videos to the Owner, at no additional cost, as requested by the Engineer during the Project. Filenames shall contain upstream and downstream sub-area and manhole designations as well as camera direction and type of work.
- E. The Contractor shall additionally provide one (1) copy of all logs relative to work performed on sewer manholes within five (5) working days of the work being performed.
- F. The Contractor shall take a digital photograph, in JPEG format, at each manhole before and after manhole rehabilitation. Filenames shall contain sub-area and manhole designations e.g. "AR-049." Digital photographs shall have a minimum resolution of ten (10) megapixels.
- G. The Contractor shall provide Flow Isolation data in Microsoft Excel format.
- H. The Contractor shall deliver to the Owner, at no additional cost, two (2) external hard drives each including the following information at the end of the project. The external hard drives shall be USB powered and capable of USB 3.0 connectivity and will become the property of the Owner upon delivery. The Contractor shall use file folders to organize individual types of data on the external hard drives. The Contractor shall include the following data on the external hard drives prior to delivery to the Engineer.
 - 1. Cured-in-Place Pipe (and Structural Cured-in-Place Pipe) – Organized per Inversion
 - a. Pre-inversion Television Inspection MPEG Files
 - Filenames shall contain upstream and downstream sub-area and manhole designations as well as camera direction and type of work e.g. "AR-050 to AR-049 Downstream – Pre-Cured-in-Place Pipe."
 - b. Each pre-inversion television inspection log as a separate PDF file
 - Filenames shall contain upstream and downstream sub-area and manhole designations as well as camera direction and type of work e.g. "AR-050 to AR-049 Downstream – Pre-Cured-in-Place Pipe."
 - c. Each liner order sheet (describing the material ordered) as a separate PDF file
 - d. Each service connection reinstatement sign-off sheet as a separate PDF file
 - e. Each thermo couple log kept during inversion process as a separate PDF file
 - f. Post-inversion Television Inspection MPEG Files
 - Filenames shall contain upstream and downstream sub-area and manhole designations as well as camera direction and type of work e.g. "AR-050 to AR-049 Downstream – Post-Cured-in-Place Pipe."

- g. Each post-inversion television inspection log as a separate PDF file
 - Filenames shall contain upstream and downstream sub-area and manhole designations as well as camera direction and type of work e.g. “AR-050 to AR-049 Downstream – Post-Cured-in-Place Pipe.”
- h. Each material testing results report as a separate PDF file

PART 2 – PRODUCTS

Not Used.

PART 3 – EXECUTION

Not Used.

END OF SECTION

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SECTION 01535

TEMPORARY BYPASS PUMPING SYSTEM

PART 1 - GENERAL

1.01 WORK INCLUDED:

- A. This Section includes furnishing of all materials, labor, equipment, power, and maintenance, to implement a temporary bypass pumping system for the purpose of diverting existing flows around the work area for the duration of the project and as required to complete the proposed work.
- B. The design, installation and operation of the temporary pumping system shall be the Contractor's responsibility. The Contractor shall employ the services of a vendor firm who can demonstrate to the Engineer that it has the required expertise in the design and operation of temporary bypass pumping systems. The vendor firm shall provide at least five references of projects similar in size and complexity to this project that have been performed by the firm within the past three years.
- C. The by-pass system shall meet the requirements of all codes and regulatory agencies having jurisdiction.

1.02 SUBMITTALS: IN ACCORDANCE WITH REQUIREMENTS OF GENERAL SPECIFICATIONS, SUBMIT THE FOLLOWING:

- A. The Contractor shall submit a detailed description of the proposed pumping system stamped by a Professional Engineer in the State of Connecticut and submit it and the vendor's references.
- B. The Contractor shall submit to the Engineer detailed plans and descriptions outlining all provisions and precautions to be taken by the Contractor regarding the handling of existing flows. This plan must be specific and complete, including such items as schedules, locations, elevations, capacities of equipment, materials and all other incidental items necessary and/or required to insure proper protection of the facilities, including protection of the access and bypass pumping locations from damage due to the discharge flows, and compliance with the requirements and permit conditions specified in these contract documents. No construction shall begin until all provisions and requirements have been reviewed by the Engineer.
- C. The plan shall include but not be limited to the following:
 - 1. Staging areas for pumps;
 - 2. Flow diversion method and types of materials;
 - 3. Number, size, material, location and method of installation of suction piping;

4. Number, size, material, method of installation and location of discharge piping;
5. Bypass pump sizes, capacity, number of each size to be on site and the related power requirements;
6. Calculations of static lift, friction losses, and flow velocity (pump curves showing pump operating range shall be submitted);
7. Standby power generator size, location;
8. Downstream discharge plan;
9. Method of protecting suction and discharge areas from erosion and damage;
10. Thrust and restraint block sizes and locations;
11. Sections showing suction and discharge pipe depth, embedment, select fill and special backfill;
12. Method of noise control for each pump and/or generator, with external dB valve.
13. Any temporary pipe supports and anchoring required;
14. Design plans and computation for access to bypass pumping locations indicated on the drawings;
15. Calculations for selection of bypass pumping pipe size;
16. Schedule for installation of and maintenance of bypass pumping lines;
17. Plan indicating proposed location of bypass pumping lines.

1.03 RELATED WORK:

- A. Section 01014, SCOPE AND SEQUENCE OF WORK

PART 2 - MATERIALS

2.01 EQUIPMENT:

- A. All pumps used shall be centrifugal, end suction, fully automatic self-priming units that do not require the use of foot-valves, diaphragm pumps, isolation valves or vacuum pumps in the priming system. The pumps may be electric or diesel powered. All pumps used must be constructed to allow dry running for long periods to accommodate the cyclical nature of bypass flows. The pumps shall not be hydraulic submersible type.

- B. All pumps shall be Godwin Dri-prime Automatic Self-priming Pumps (CD, DPC, or HL Series) as manufactured by Xylem, (860) 889-2343, (207) 233-8322, or approved equal.
- C. The Contractor shall provide the necessary stop/start controls for each pump.
- D. The Contractor shall include one stand-by pump system (including suction and discharge piping) of each size to be maintained on site.
- E. Additional back-up pumps shall be on-line, isolated from the primary system by a valve.
- F. Discharge Piping - in order to prevent the accidental spillage of flows, all temporary discharge systems shall be constructed of rigid pipe with positive, restrained joints. Under no circumstances will aluminum "Irrigation" type piping or glued PVC pipe be allowed. Discharge hoses will only be allowed in short sections and with the specific permission of the Engineer.
- G. Allowable piping materials will be Godwin "QD" steel pipe (Xylem), or fused, high-density polyethylene pipe as manufactured by Xylem, or approved equal.

2.02 SYSTEM DESCRIPTION:

A. DESIGN REQUIREMENTS:

1. Bypass pumping systems shall have sufficient capacity to pump peak flows of 2,000 GPM. The Contractor shall provide all pipeline, plugs, pumps of adequate size to handle peak flow, and discharge piping to ensure that the total flow can be safely diverted around the area of work. Bypass pumping system will be required to operate 24 hours per day.
2. The Contractor shall have adequate standby power and pumping equipment available and ready for immediate operation and use in the event of an emergency or breakdown. One standby pump for each size pump utilized shall be installed at the mainline flow bypassing locations, ready for use in the event of primary pump failure.
3. Bypass pumping system shall be capable of bypassing the flow around the work area and of releasing any amount of flow up to full available flow into the work area as necessary for satisfactory performance of work.

B. PERFORMANCE REQUIREMENTS:

1. It is essential for the protection of the public safety and private property that there be no interruption in the flow throughout the duration of the project. To this end, the Contractor shall provide, maintain and operate all temporary facilities such as dams, plugs, pumping equipment (both primary and back-up units as required), conduits, all necessary power, and all other labor and equipment necessary to

intercept flows before it reaches the point where it would interfere with his work, carry it past his work and return it downstream of his work.

2. The design, installation and operation of the temporary pumping system shall be the Contractor's responsibility. The bypass system shall meet the requirements of all codes and regulatory agencies having jurisdiction.
3. The Contractor shall provide all necessary means to safely convey the flow past the work area. The Contractor will not be permitted to stop or impede the flows under any circumstances.
4. The Contractor shall maintain flow around the work area in a manner that will not cause surcharging or significant level variations in the existing system, and that will protect public and private property from damage and flooding.
5. The Contractor shall protect water resources, wetlands and other natural resources.
6. The Contractor shall be responsible to meet noise requirements (68dbA @ 30'). All diesel driven primary and standby pumps shall be sound attenuated. The use of Critical Silenced Canopy Pumps or acoustical Whisper Pac enclosures for sound attenuation is required.

PART 3 - EXECUTION

3.01 FIELD QUALITY CONTROL AND MAINTENANCE.

- A. The Contractor shall perform leakage and pressure tests of the bypass pumping discharge piping using clean water prior to actual operation. The Engineer shall be given 24 hours notice prior to testing.
- B. Contractor shall inspect bypass pumping system every two hours to ensure that the system is working correctly.
- C. The Contractor shall insure that the temporary pumping system is properly maintained and a responsible operator shall be on hand at all times when pumps are operating.
- D. Spare parts for pumps and piping shall be kept on site as required.
- E. Adequate hoisting equipment for each pump and accessories shall be maintained on the site.

3.02 PRECAUTIONS:

- A. Contractor is responsible for locating any existing utilities in the area the Contractor selects to locate the bypass pipelines. The Contractor shall locate his bypass pipelines to minimize any disturbance to existing utilities and shall obtain approval of the pipeline locations from the Owner and the Engineer. All costs associated with relocating utilities

and obtaining all approvals shall be paid by the Contractor.

- B. During all bypass pumping operation, the Contractor shall protect the work area and all local utilities from damage inflicted by any equipment. The Contractor shall be responsible for all physical damage to public and private property caused by human or mechanical failure.

3.03 INSTALLATION AND REMOVAL:

- A. The Contractor shall construct temporary bypass pumping structures only at the access locations indicated on the drawings and may be required to provide adequate suction conduit.
- B. Diverting or blocking of flows shall incorporate primary and secondary devices. When diversion or blocking is no longer needed for performance and acceptance or work, it is to be removed in a manner that permits the flow to slowly return to normal without surge, to prevent surcharging or causing other major disturbances downstream.
- C. The Contractor shall exercise caution and comply with OSHA requirements when working in the presence of gases, combustible or oxygen-deficient atmospheres, and confined spaces.
- D. Except as specifically permitted, the installation of the bypass pipelines is prohibited in all salt marsh/wetland areas. The pipeline must be located off streets and sidewalks and on shoulders of the roads. When the bypass pipeline crosses local streets and private driveways, the Contractor must place the bypass pipelines in trenches and cover with temporary pavement. Upon completion of the bypass pumping operations, and after the receipt of written permission from the Engineer, the Contractor shall remove all the piping, restore all property to pre-construction condition and restore all pavement. The Contractor is responsible for obtaining any approvals from the Owner for placement of the temporary pipeline within public ways.

END OF SECTION

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SECTION 01550

SIGNAGE (TRAFFIC CONTROL)

PART 1 - GENERAL

1.01 WORK INCLUDED:

This Section covers furnishing and installing traffic control signs and other devices.

1.02 SYSTEM DESCRIPTION:

The Contractor shall furnish and install all construction signs deemed necessary by and in accordance with the latest edition of Part VI of the Manual on Uniform Traffic Control Devices (MUTCD) as published by the U.S. Department of Transportation.

PART 2 - PRODUCTS

2.01 TRAFFIC WARNING AND REGULATING DEVICES:

Contractor shall provide warning signs, barricades and other devices in accordance with the specifications provided in the MUTCD. Size of signs, lettering, colors, method of support and other factors prescribed in the MUTCD shall be adhered to.

PART 3 - EXECUTION

3.01 INSTALLATION:

- A. Contractor shall erect barricades, barrier fences, traffic signs, and other traffic control devices as required by the MUTCD, or as required by the Engineer, to protect the work area from traffic, pedestrians, and animals.
- B. Contractor shall relocate barricades, signs and other devices as necessary as the work progresses.
- C. Unless extended protection is required for specific areas, when the work has been completed, all temporary warning and regulatory devices used by the Contractor shall be removed so that traffic can move unimpeded through the area.

END OF SECTION

SECTION 01553

UNIFORMED OFFICERS FOR TRAFFIC CONTROL

PART 1 - GENERAL

1.01 WORK INCLUDED:

- A. This Section covers the provisions for furnishing Uniformed Officers for Traffic Control and Maintenance of Traffic as described in Section 01110 CONTROL OF WORK AND MATERIALS.

1.02 DESCRIPTION:

- A. The Contractor shall coordinate with the local jurisdiction's Traffic Control Officer to determine the number of Officers deemed necessary to provide for public safety and to maintain a smooth flow of traffic through the construction area(s) affected.

1.03 RELATED WORK:

- A. SECTION 01110, CONTROL OF WORK AND MATERIALS (MAINTENANCE OF TRAFFIC)
- B. SECTION 01550, SIGNAGE (TRAFFIC CONTROL)

PART 2 - PRODUCTS

2.01 UNIFORMED OFFICERS:

- A. Contractor shall provide the Traffic Control Officer with a minimum of 48 - hours notice indicating the time of day, street location and confirm number of officers required for traffic control.
- B. Contractor shall give the Traffic Control Officer a minimum of 24-hours prior cancellation notice should Contractor determine that due to weather or conditions beyond his control he would not need the scheduled officers.
- C. Contractor shall pay for officer(s) at the prevailing rate established by the local police department should officers not be needed and the Contractor fails to cancel the officers as noted in 2.01.B above.
- D. Where the Owner is paying directly for Traffic Officers and the Contractor cancels scheduled officers, the Contractor shall be responsible for payment of the wages for cancellations if not cancelled in accordance with 2.01.B and 2.01.C above.

PART 3 - EXECUTION

3.01 OPERATION:

- A. Contractor shall provide barricades, barrier fences, traffic signs, and other traffic control devices as required by the Owner's Traffic Control Officer, or as required by the Engineer, to protect the work area from traffic, pedestrians, and animals.
- B. Contractor shall relocate barricades, signs and other devices as necessary as the work progresses as required by the Owners Traffic Control Officer or the Engineer.

END OF SECTION

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SECTION 01562

DUST CONTROL

PART 1 - GENERAL

1.01 DESCRIPTION:

This section of the specification covers the control of dust via calcium chloride and water, complete.

PART 2 - PRODUCTS

2.01 CALCIUM CHLORIDE:

- A. Calcium chloride shall conform to the requirements of AASHTO-M 144, Type I or Type II and Specification for Calcium Chloride, ASTM D98. The calcium chloride shall be packaged in moisture proof bags or in airtight drums with the manufacturer, name of product, net weight, and percentage of calcium chloride guaranteed by the manufacturer legibly marked on each container.
- B. Calcium chloride failing to meet the requirements of the aforementioned specifications or that which has become caked or sticky in shipment, may be rejected by the Engineer.

2.02 WATER:

- A. Water shall not be brackish and shall be free from oil, acid, and injurious alkali or vegetable matter.

PART 3 - EXECUTION

3.01 APPLICATION:

- A. Calcium chloride shall be applied when ordered by the Engineer and only in areas which will not be adversely affected by the application. See Section 01570, ENVIRONMENTAL PROTECTION.
- B. Calcium chloride shall be uniformly applied at the rate of 1-1/2 pounds per square yard or at any other rate as required by the Engineer. Application shall be by means of a mechanical spreader, or other approved methods. The number and frequency of applications shall be determined by the Engineer.
- C. Water may be sprinkler applied with equipment including a tank with gauge-equipped pressure pump and a nozzle-equipped spray bar.

- D. Water shall be dispersed through the nozzle under a minimum pressure of 20 pounds per square inch, gauge pressure.

END OF SECTION

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SECTION 01570

ENVIRONMENTAL PROTECTION

PART 1 – GENERAL

1.01 DESCRIPTION:

- A. The work covered by this section of the specifications consists of furnishing all labor, materials, tools and equipment and performing all work required for the prevention of environmental pollution during and as a result of construction operations under this contract.
- B. The requirements set forth in this section of the specifications apply to cross-country areas, river and stream crossings, and construction in and adjacent to wetlands, unless otherwise specifically stated.
- C. Prior to commencement of work, the Contractor shall meet with representatives of the Engineer to develop mutual understandings relative to compliance of the environmental protection program.

1.02 RELATED WORK:

- A. Section 00890, PERMITS
- B. Section 01330, SUBMITTALS
- C. Section 01562, DUST CONTROL

1.03 SUBMITTALS:

- A. The Contractor shall submit details and literature fully describing environmental protection methods to be employed in carrying out construction activities within 100 feet of wetlands or across areas designated as wetlands.

1.04 QUALITY ASSURANCE:

- A. It is the Contractor's responsibility to comply with all applicable Federal, State, and Municipal laws and requirements.

PART 2 - PRODUCTS

2.01 SILT FENCE:

- A. The silt fence shall consist of a 3-foot wide continuous length sediment control fabric, stitched to a mesh backing, and stapled to preweathered oak posts installed as shown on the drawings. The oak posts shall be 1-1/4-inches by 1-1/4-inches (Minimum

Dimension) by 48-inches and shall be tapered. The bottom edge of the silt fence shall be buried as shown on the drawings.

- B. The silt fence shall be DOT Silt Fence PPDM3611, as manufactured by U.S. Silt & Site Supply/Getesco, Concord, NH, or approved equal.
- C. Silt fence properties:

<u>Physical Properties</u>	<u>Test Method</u>	<u>Minimum Value</u>
Grab Strength, lbs.	ASTM-D-4632	124
Grab Elongation, %	ASTM-D-4632	15
Mullen burst, psi	ASTM-D-3786	300
Puncture, lbs.	ASTM-D-4833	65
Trapezoidal Tear, lbs.	ASTM-D-4533	65
UV Resistance ² , % ³	ASTM-D-4355	80@500 hrs.
AOS, US Sieve No.	ASTM-D-4751	30
Flow Rate, gal/min/sq ft	ASTM-D-4491	10
Permittivity, (1/sec) gal/min/sq ft	ASTM-D-4491	0.05 sec ⁻¹

2.02 STRAW BALES:

- A. Straw bales shall consist of certified seed free stems of agricultural grain and cereal crops and shall be free of grasses and legumes. Standard bales shall be 14-inches high, 18- inches wide and 36- to 40-inches long tied with polypropylene twine and weigh within 5 percent of 7 lbs. per cubic ft.

2.03 STRAW WATTLES:

- A. Straw Wattles shall consist of a 100% biodegradable exterior jute or coir netting with 100% wheat straw interior filling as manufactured by GEI Works, Sebastian, Florida (Phone: 772-646-0597; website: www.erosionpollution.com), or approved equal.

2.04 SILT CURTAIN:

- A. The silt curtain shall be a Type-1-Silt-Barrier consisting of 18-ounce vinyl fabric skirt with a 6-inch marine quality floatation device. The skirt shall be ballasted to hang vertical in the water column by a minimum 3/16-inch galvanized chain. The silt curtain shall extend into the water as shown on the drawings. If necessary, join adjacent ends of the silt curtain by connecting the reinforcing grommets and shackling ballast lines.

2.05 CATCH BASIN PROTECTION:

- A. To trap sediment and to prevent sediment from clogging drainage systems, catch basin protection in the form of a siltation sack (Siltsack as manufactured by ACF Environmental, Inc. or approved equal) shall be provided as approved by the Engineer.

PART 3- EXECUTION

3.01 NOTIFICATION AND STOPPAGE OF WORK:

- A. The Engineer will notify the Contractor in writing of any non-compliance with the provisions of the Contract. The Contractor shall, after receipt of such notice, immediately take corrective action. Such notice, when delivered to the Contractor or his authorized representative at the site of the work, shall be deemed sufficient for the purpose. If the Contractor fails to act promptly, the Owner may order stoppage of all or part of the work through the Engineer until satisfactory corrective action has been taken. No claim for an extension of time or for excess costs or damage incurred by the Contractor as a result of time lost due to any stop work orders shall be made unless it was later determined that the Contractor was in compliance.

3.02 AREA OF CONSTRUCTION ACTIVITY:

- A. Insofar as possible, the Contractor shall confine his construction activities to those areas defined by the plans and specifications. All land resources within the project boundaries and outside the limits of permanent work performed under this contract shall be preserved in their present condition or be restored to a condition after completion of construction at least equal to that which existed prior to work under this contract.

3.03 PROTECTION OF WATER RESOURCES:

- A. The Contractor shall not pollute streams, lakes or reservoirs with fuels, oils, bitumens, calcium chloride, acids or other harmful materials. It is the Contractor's responsibility to comply with all applicable Federal, State, County and Municipal laws regarding pollution of rivers and streams.
- B. Special measures should be taken to insure against spillage of any pollutants into public waters.

3.04 CONSTRUCTION IN AREAS DESIGNATED AS WETLANDS ON THE DRAWINGS:

- A. Insofar as possible, the Contractor shall make every effort to minimize disturbance within areas designated as wetlands or within 50-feet of wetland resource areas. Total easement widths shall be limited to the widths shown.
- B. The Contractor shall perform his work in such a way that these areas are left in the condition existing prior to construction.
- C. The elevations of areas designated as wetlands shall not be unduly disturbed by the Contractor's operations outside of the trench limits. If such disturbance does occur, the Contractor shall take all measures necessary to return these areas to the elevations which existed prior to construction.

- D. In areas designated as wetlands, the Contractor shall carefully remove and stockpile the top 24 inches of soil. This topsoil material shall be used as backfill for the trench excavation top layer. The elevation of the trench shall be restored to the preconstruction elevations wherever disturbed by the Contractor's operation.
- E. The Contractor shall use a trench box, sheeting or bracing to support the excavation in areas designated as wetlands.
- F. Excavated materials shall not be permanently placed or temporarily stored in areas designated as wetlands. Temporary storage areas for excavated material shall be as required by the Engineer.
- G. The use of a temporary gravel roadway to construct the pipeline in the wetlands area is not acceptable. The Contractor will be required to utilize timber or rubber matting to support his equipment in these areas. The timber or rubber matting shall be constructed in such a way that it is capable of supporting all equipment necessary to install the pipeline. The timber or rubber matting shall be constructed of materials and placed in such a way that when removed the material below the matting will not be unduly disturbed, mixed or compacted so as to adversely affect recovery of the existing plant life.
- H. Bentonite dams shall be placed in wetlands to prevent drainage. Locations for dams are as indicated on the drawings or as required by the Engineer.
- I. During construction, easements within wetlands shall be lined with a continuous straw bale/siltation fence barrier or line of straw wattles (aka compost filter tube, silt/filter sock).

3.05 PROTECTING AND MINIMIZING EXPOSED AREAS:

- A. The Contractor shall limit the area of land which is exposed and free from vegetation during construction. In areas where the period of exposure will be greater than two (2) months, temporary vegetation, mulching or other protective measures shall be provided as specified.
- B. The Contractor shall take account of the conditions of the soil where temporary cover crop will be used to insure that materials used for temporary vegetation are adaptive to the sediment control. Materials to be used for temporary vegetation shall be approved by the Engineer.

3.06 LOCATION OF STORAGE AREAS:

- A. The location of the Contractor's storage areas for equipment and/or materials shall be upon cleared portions of the job site or areas to be cleared as a part of this project, and shall require written approval of the Engineer. Plans showing storage facilities for equipment and materials shall be submitted for approval of the Engineer.

- B. No excavated materials or materials used in backfill operations shall be deposited within a minimum distance of one hundred (100) feet of any watercourse or any drainage facility. Adequate measures for erosion and sediment control such as the placement of baled straw around the downstream perimeter of stockpiles shall be employed to protect any downstream areas from siltation.
- C. There shall be no storage of equipment or materials in areas designated as wetlands.
- D. The Engineer may designate a particular area or areas where the Contractor may store materials used in his operations.
- E. Storage areas in cross-country locations shall be restored to pre-construction conditions with the planting of native species of trees and shrubs.

3.07 PROTECTION OF LANDSCAPE:

- A. The Contractor shall not deface, injure, or destroy trees or shrubs nor remove or cut them without written authority from the Owner. No ropes, cables, or guys shall be fastened to or attached to any existing nearby trees for anchorages unless specifically authorized by the Engineer. Excavating machinery and cranes shall be of suitable type and be operated with care to prevent injury to trees which are not to be removed, particularly overhanging branches and limbs. The Contractor shall, in any event, be responsible for any damage resulting from such use.
- B. Branches, limbs, and roots shall not be cut except by permission of the Engineer. All cutting shall be smoothly and neatly done without splitting or crushing. When there is unavoidable injury to branches, limbs and trunks of trees, the injured portions shall be neatly trimmed and covered with an application of grafting wax or tree healing paint as directed.
- C. Where, in the opinion of the Engineer, trees may possibly be defaced, bruised, injured, or otherwise damaged by the Contractor's equipment or by his blasting or other operations, the Engineer may require the Contractor to adequately protect such trees by placing boards, planks, poles or fencing around them. Any trees or landscape feature scarred or damaged by the Contractor's equipment or operations shall be restored as nearly as possible to its original condition at the expense of the Contractor. The Engineer will decide what method of restoration shall be used, and whether damaged trees shall be treated and healed or removed and disposed of under the provisions of Section 02230, CLEARING AND GRUBBING.
- D. Cultivated hedges, shrubs, and plants which could be injured by the Contractor's operations shall be protected by suitable means or shall be dug up, balled and temporarily replanted and maintained. After construction operations have been substantially completed, they shall be replanted in their original positions and cared for until growth is re-established. If cultivated hedges, shrubs, and plants are injured to such a degree as to affect their growth or diminish their beauty or usefulness, they shall

be replaced by items of a kind and quality at least equal to that existing at the start of the work.

3.08 CLEARING AND GRUBBING:

- A. The Contractor shall clear and grub only on the Owner's land or the Owner's easements, and only the area required for construction operations, as approved by the Engineer. Removal of mature trees (4 inches or greater DBH) will not be allowed on temporary easements.
- B. The Contractor shall not remove trees in the Owner's temporary easements without permission of the Engineer.

3.09 DISCHARGE OF DEWATERING OPERATIONS:

- A. Any water that is pumped and discharged from the trench and/or excavation as part of the Contractor's water handling shall be filtered by an approved method prior to its discharge into a receiving water or drainage system.
- B. Under no circumstances shall the Contractor discharge water to the areas designated as wetlands. When constructing in a wetlands area, the Contractor shall discharge water from dewatering operations directly to the nearest drainage system, stream, or waterway after filtering by an approved method.
- C. The pumped water shall be filtered through filter fabric and baled straw, a vegetative filter strip or a vegetated channel to trap sediment occurring as a result of the construction operations. The vegetated channel shall be constructed such that the discharge flow rate shall not exceed a velocity of more than 1 foot per second. Accumulated sediment shall be cleared from the channel periodically.

3.10 DUST CONTROL:

- A. During the progress of the work, the Contractor shall conduct his operations and maintain the area of his activities, including sweeping and sprinkling of streets as necessary, to minimize creation and dispersion of dust. If the Engineer decides it is necessary to use calcium chloride for more effective dust control, the Contractor shall furnish and spread the material, as directed. Calcium chloride shall be as specified under Section 01562, DUST CONTROL.
- B. Calcium Chloride shall not be used for dust control within a drainage basin or in the vicinity of any source of potable water.

3.11 SEPARATION AND REPLACEMENT OF TOPSOIL:

- A. Topsoil shall be carefully removed from cross-country areas where excavations are to be made, and separately stored to be used again as required. The topsoil shall be stored

in an area acceptable to the Engineer and adequate measures shall be employed to prevent erosion of said material.

3.12 BALED STRAW:

- A. To trap sediment and to prevent sediment from clogging drainage systems, baled straw shall be used where shown on the drawings. Care shall be taken to keep the bales from breaking apart. The bales should be securely staked to prevent overturning, flotation, or displacement. All deposited sediment shall be removed periodically. Bales shall not be placed within a waterway during construction of the pipeline crossing.

3.13 ERECTION AND MAINTENANCE OF SILT FENCE:

- A. Where indicated on the drawings or where required by the Engineer, the Contractor shall erect and maintain a temporary silt fence. In areas designated as wetlands, the Contractor shall line the limits of the construction easement with a silt fence. The silt fence shall be used specifically to contain sediment from runoff water and to minimize environmental damage caused by construction.

3.14 CATCH BASIN PROTECTION:

- A. Catch basin protection shall be used for every catch basin, shown on the plans or as required by the Engineer, to trap sediment and prevent it from clogging drainage systems and entering wetlands. Siltation sacks shall be securely installed under the catch basin grate. Care shall be taken to keep the siltation sacks from breaking apart or clogging. All deposited sediment shall be removed periodically and at times prior to predicted precipitation to allow free drainage flow. Prior to working in areas where catch basins are to be protected, each catch basin sump shall be cleaned of all debris and protected. The Contractor shall properly dispose of all debris at no additional cost to the Owner.

3.15 STRAW WATTLES:

- A. The wattles will be placed in a shallow trench (2-3 inches deep) and staked in the ground using wooden stakes driven at 4-foot intervals. The wooden stakes will be placed at a minimum depth of 24-inches into the ground.

END OF SECTION

SECTION 01575

HANDLING EXISTING FLOWS

PART 1 - GENERAL

1.01 WORK INCLUDED:

This Section covers all materials, equipment, and labor required to handle existing sanitary and combined sewage flows and installation and maintenance of all temporary connections, plugs, and by-pass pumping. Upon completion of the project all temporary plugs and connections shall be removed and flows returned to the existing pipes or flows transferred to the new pipes. Plug, fill, and abandon existing pipes and manholes as shown on the drawings or as specified herein.

1.02 RELATED WORK:

Section 01330, SUBMITTALS

1.03 SUBMITTALS: IN ACCORDANCE WITH REQUIREMENTS OF GENERAL SPECIFICATIONS, SUBMIT THE FOLLOWING:

Submit complete, checked shop drawings, showing equipment, method of by-passing, and the method of transferring flows from the existing system to the new system. Prior to starting work, the Contractor shall submit flow calculations for each pipeline to be bypassed that show pump capacity to be provided. Comply with requirements of Section 01330.

PART 2 - PRODUCTS - NOT APPLICABLE

PART 3 - EXECUTION

3.01 MAINTAINING EXISTING FLOWS:

- A. The Contractor shall maintain all flows in the existing system until construction is complete and ready for safe operation.
- B. The Contractor shall protect against surcharging of the existing system upstream of the work area by installing adequate temporary by-pass pumping to handle dry weather and wet weather flows.
- C. The Contractor shall repair any damage that occurs to existing pipes and structures to the satisfaction of the Engineer. Work performed under this section shall be considered incidental and shall not be measured separately for payment.

- D. Existing pipes to be abandoned shall be filled with cement grout as specified in Section 03300 (controlled density fill as specified in Section 02058. Plugs shall be installed at locations shown on the drawings.
- E. The Contractor shall not allow sanitary flow to discharge to any salt or fresh water body by means of overflow, by-pass pumping, or any other method that may contaminate these water areas.
- F. The temporary bypass pumping system shall include floats (or other acceptable level sensing devices) that will transmit a high water condition to an on-site autodialer that shall send an alarm condition to the Contractor's Superintendent. The autodialer shall also alert a designated "on-call" employee of the Contractor, should the Superintendent fail to acknowledge the call.

END OF SECTION

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SECTION 01740

CLEANING UP

PART 1 - GENERAL

1.01 DESCRIPTION:

The Contractor must employ at all times during the progress of its work adequate cleanup measures and safety precautions to prevent injuries to persons or damage to property. The Contractor shall immediately, upon request by the Engineer provide adequate material, equipment and labor to cleanup and make safe any and all areas deemed necessary by the Engineer.

1.02 RELATED WORK:

- A. Section 00700 GENERAL CONDITIONS
- B. Section 01110 CONTROL OF WORK AND MATERIALS
- C. Section 01140 SPECIAL PROVISIONS
- D. Section 01570 ENVIRONMENTAL PROTECTION

PART 2 - PRODUCTS

Not applicable

PART 3 - EXECUTION

3.01 DAILY CLEANUP:

- A. The Contractor shall clean up, at least daily, all refuse, rubbish, scrap and surplus material, debris and unneeded construction equipment resulting from the construction operations and sweep the area. The site of the work and the adjacent areas affected thereby shall at all times present a neat, orderly and workmanlike appearance.
- B. Upon written notification by the Engineer, the Contractor shall within 24 hours clean up those areas, which in the Engineer's opinion are in violation of this section and the above referenced sections of the specifications.
- C. If in the opinion of the Engineer, the referenced areas are not satisfactorily cleaned up, all other work on the project shall stop until the cleanup is satisfactory.

3.02 MATERIAL OR DEBRIS IN DRAINAGE FACILITIES:

- A. Where material or debris has washed or flowed into or has been placed in existing watercourses, ditches, gutters, drains, pipes, structures, such material or debris shall be entirely removed and satisfactorily disposed of during progress of the work, and the ditches, channels, drains, pipes, structures, and work shall, upon completion of the work, be left in a clean and neat condition.

3.03 REMOVAL OF TEMPORARY BUILDINGS, STRUCTURES AND EQUIPMENT:

- A. On or before completion of the work, the Contractor shall, unless otherwise specifically required or permitted in writing, tear down and remove all temporary buildings and structures it built; shall remove all temporary works, tools and machinery or other construction equipment it furnished; shall remove all rubbish from any grounds which it has occupied; shall remove silt fences and hay bales used for trapping sediment; and shall leave the roads and all parts of the property and adjacent property affected by its operations in a neat and satisfactory condition.

3.04 RESTORATION OF DAMAGED PROPERTY:

- A. The Contractor shall restore or replace, when and as required, any property damaged by its work, equipment or employees, to a condition at least equal to that existing immediately prior to the beginning of operations. To this end the Contractor shall do as required all necessary highway or driveway, walk and landscaping work. Materials, equipment, and methods for such restoration shall be as approved by the Engineer.

3.05 FINAL CLEANUP:

- A. Before acceptance by the Owner, the Contractor shall perform a final cleanup to bring the construction site to its original or specified condition. This cleanup shall include removing all trash and debris off of the premises. Before acceptance, the Engineer shall approve the condition of the site.

END OF SECTION

SECTION 01770

PROJECT CLOSEOUT

PART 1 - GENERAL

1.01 WORK INCLUDED:

- A. This Section covers administrative and procedural requirements for closing out the project, including, but not limited to:
 - 1. Project as-built documents
 - 2. Checkout and Certification
 - 3. Startup and Testing
 - 4. Final Cleaning
 - 5. Substantial Completion
 - 6. Closeout Procedures
 - 7. Final Completion
 - 8. Correction/Warranty Period
- B. Closeout checklist to be completed by the Engineer.

1.02 RELATED WORK:

- A. General Requirements in their entirety.
- B. Section 01740, CLEANING UP

1.03 AS-BUILT DOCUMENTS:

- A. Contractor shall maintain on site, separate from the documents used for construction, one set of the documents listed below, and as construction progresses, shall legibly record on these documents all changes made during construction.
 - 1. Contract Drawings.
 - 2. Specifications.
 - 3. Addenda.

4. Change Orders and other Modifications to the Contract.
5. Reviewed shop drawings, product data, and samples.
6. Written interpretations and clarifications.
7. Field Orders.
8. Field test reports properly verified.

- B. The completed set of as-built documents shall be submitted to the Engineer with the final Application for Payment.

1.04 CHECKOUT AND CERTIFICATIONS:

- A. Prior to checkout and certifications the following tasks shall be completed:

1. Construction shall be complete. For this purpose, completion of construction is defined as follows:
 - a. The Contractor has completed construction and erection of the work in conformance with the Contract Drawings and Specifications.
 - b. The Contractor has installed and adjusted operating equipment, systems, or facilities, as applicable, as defined by the manufacturers' erection, installation, operation and maintenance instructions.
2. All shop drawings shall have final approval.
3. All shop tests shall be complete and approved test results submitted to the Engineer.

- B. Refer to Section 01750 for requirements regarding equipment checkout and certification.

1.05 START-UP AND TESTING:

- A. Prior to start-up the following tasks shall be complete:

1. All checkout and certifications shall be satisfactorily completed,
2. All operations and maintenance manuals shall be approved,
3. All preliminary training by the manufacturer's representative shall be completed,
4. An approved start-up procedure shall be in place.

- B. Refer to Section 01750 and 01751 for start-up and testing requirements.

1.06 FINAL CLEANING:

- A. Complete the following cleaning operations before requesting inspection for Certification of Substantial Completion.
 - 1. Clean the site, including landscape development areas of rubbish, litter and other foreign substances. Sweep paved areas broom clean; remove stains, spills and other foreign deposits. Rake grounds that are neither paved nor planted, to smooth, even textured surfaces.
 - 2. Remove waste and surplus materials, rubbish, fencing equipment, temporary utilities and construction facilities from the site, unless otherwise required by the Engineer.
 - 3. Comply with requirements of Section 01740 CLEANING UP.

1.07 SUBSTANTIAL COMPLETION:

- A. Substantial Completion is officially defined in the General and Supplementary Conditions. The date of substantial completion will be certified by the Engineer. This date will not be certified until the following requirements have been satisfied by the Contractor:
 - 1. All Contract requirements are coordinated into a fully operational system. All individual units of equipment and treatment are fully operative and performing at specified efficiencies. Where efficiencies are not specified, performance shall meet acceptable standards for the particular unit.
 - 2. All field tests have been satisfactorily completed and reports forwarded to the Engineer.
 - 3. All final training has been completed by the manufacturers' representatives.
 - 4. All spare parts and lubricants have been satisfactorily delivered to the Owner. Spare parts are for the exclusive use of the Owner when the facility has been turned over. Contractor is responsible for all maintenance and repair materials required until the facility is accepted by the Owner.

1.08 CLOSEOUT PROCEDURES:

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and is complete in accordance with Contract Documents and ready for Engineer's and Owner's inspection.
- B. Accompany Engineer and Owner on inspection to verify conformance with the Contract Documents. Prepare a punch list of work items that have been determined by inspection to not conform to Contract Documents. Punch list items shall include work items that are

missing, incomplete, damaged, incorrect items, or improperly installed or constructed. The Contractor shall correct the punch list deficiencies by re-work, modifications, or replacement, as appropriate, until the items conform to the Contract Documents. The initial punch list shall be produced by the Contractor, with copies to the Engineer and Owner. When the Contractor has reduced the number of deficient items to a reasonable level, the Engineer will develop a definitive punch list for the use of the Contractor.

- C. Provide submittals to Engineer that are required by governing or other authorities.
- D. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due. The Contractor shall submit the following documents with or prior to Final Application for Payment: Set of as-built documents, Contract Completion and Acceptance Certificate, Consent of Surety to Final Payment, Release and Waiver of Liens and Claims (SECTION 01770 ATT. A), Affidavit of Payment of Debts and Claims, and remaining releases, waivers, warranties/guarantees, and all other data required by the Contract Documents.

1.09 FINAL COMPLETION:

- A. Prior to final completion, the following tasks shall be completed:
 - 1. All items in the punch list shall be completed.
 - 2. All Contract closeout documentation shall be submitted to and accepted by the Engineer.

1.10 CORRECTION/WARRANTY PERIOD:

- A. During the correction period, the Contractor shall correct all deficiencies in equipment and materials.
- B. During the warranty period, the Contractor shall perform all corrective work on warranty deficiencies.
- C. Corrective work will be identified by the Engineer or Owner, as appropriate. The Contractor will be notified of the item(s) requiring corrective work.
- D. The Contractor shall begin work on all corrective work within ten days of being notified of the deficiency by the Engineer and shall then work continuously until the deficiency is corrected. Upon completion of the corrective work, the Contractor shall submit a letter report to the Engineer describing the deficiency and the corrective action that was taken.
- E. The Contractor shall coordinate all corrective work with the Engineer and/or the Owner.

1.11 COMPLETION CHECKLIST:

- A. The Project Completion Checklist, which follows shall be completed as the project nears completion. When the project has been fully completed, Final Payment can be approved.

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PROJECT COMPLETION CHECKLIST

Owner _____ Job No. _____

Project _____

As part of the project closeout, all items listed below must be checked off as being complete or otherwise accounted for. The person verifying completion of the item shall list the completion date and his/her initials.

Project Closeout Checklist		
	Date Completion Verified	Verified by
AS-BUILT DOCUMENTS HANDED OVER		
1. Contract Drawings		
2. Specifications		
3. Addenda		
4. Change Orders/Contract Modifications		
5. Reviewed Shop Drawings, Product Data and Samples		
6. Written Interpretations/Clarifications		
7. Field Orders		
8. Field Test Reports		
EQUIPMENT CHECKOUT AND CERTIFICATIONS		
1. Construction Complete per Drawings/Specifications		
2. Equipment Installed and Adjusted		
3. All Shop Drawings have Final Approval		
4. All Shop Tests Complete and Results Submitted		

Project Closeout Checklist		
	Date Completion Verified	Verified By
START-UP AND TESTING		
1. All Checkout and Certifications Complete		
2. All O&M Manuals Approved		
3. All Preliminary Training by Manufacturers Rep. Completed		
FINAL CLEANING		
1. All Construction Facilities Removed		
2. All Construction Debris Removed		
3. All Areas Swept/Cleared		
SUBSTANTIAL COMPLETION		
1. All Items Coordinated Into a Fully Operational System		
2. All Equipment Units Operational at Specified Efficiencies		
3. All Field Tests Completed and Reports Submitted		
4. All Final Training by Manufacturer's Rep. Completed		
5. All Spare Parts and Lubricants Provided		
CLOSEOUT PROCEDURES		
1. Written Certification Submitted that Work is Ready for Owner & Engineer Inspector		
2. Inspection by Owner, Engineer, Contractor completed		
3. Punch List of Nonconforming Items Prepared		
4. Documents Required by Governing or Other Authorities Submitted (List Them)		
5. Final Application for Payment Received		
6. Contract Completion and Acceptance Certificate Submittal		
7. Consent of Surety to Final Payment Submittal		
8. Release and Waiver of Liens and Claims Submitted		
9. Affidavit of Payment of Debts and Claims Submitted		

Project Closeout Checklist		
	Date Completion Verified	Verified By
10. Warranties/Guarantees Submitted		
11. Other Required Releases and Waivers Submitted (List Them)		
12. Permits Submitted (List Them)		
13. Weekly Payrolls Submitted as Required by Law		
FINAL COMPLETION		
1. All Items in Punch List Completed		
2. All Other Required Documentation Submitted (List It)		
CORRECTION/WARRANTY PERIOD		
1. Correction Period Start Date: _____ End Date: _____		
2. Specific Warranties Provided		
<div> <div>Item</div> <div>Warranty Duration</div> </div>		

Full name of persons signing their initials on this checklist:

END OF SECTION

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**SECTION 01770 – ATTACHMENT A
CERTIFICATE OF SUBSTANTIAL COMPLETION**

PROJECT: Sanitary Sewer Rehabilitation Project – Phase 4

CONTRACTOR:

CONTRACT DATE:

TENTATIVE LIST OF ITEMS TO BE CORRECTED OR COMPLETED
--

See Attached Punch List

DEFINITION OF SUBSTANTIAL COMPLETION

The date of substantial completion of a project or specified part of a project is the date when construction is sufficiently completed, in accordance with the contract documents, so that the project or specified part of the project can be utilized for the purpose for which it was intended.

To: City of Derby, Connecticut – Water Pollution Control Authority

Date of Substantial Completion:

The work under this contract has been inspected by authorized representatives of the Owner and Contractor and the project is hereby declared to be substantially completed on the above date.

A tentative list of items to be completed or corrected is appended hereto. The failure to include an item on it does not alter the responsibility of the Contractor to complete all work in accordance with the contract documents:

CITY OF DERBY - WPCA:_____

TITLE:_____ DATE:_____

ENGINEER:_____

TITLE:_____ DATE:_____

The Contractor accepts the above Certificate of Substantial Completion and agrees to complete and correct the items on the tentative list.

CONTRACTOR:

AUTHORIZED REPRESENTATIVE:_____

DATE:_____

EXCEPTIONS AS TO GUARANTEES AND WARRANTIES:

NONE

ATTACHMENTS:

Punch List Prepared by

END OF SECTION

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**SECTION 01770 – ATTACHMENT B
CERTIFICATE OF FINAL COMPLETION**

PROJECT: Sanitary Sewer Rehabilitation Project – Phase 4

CONTRACTOR:

CONTRACT DATE:

DATE OF FINAL COMPLETION:

FINAL CERTIFICATION OF CONTRACTOR

I hereby certify that the work as identified in the Final Payment Request dated, _____, for contract work for the referenced Project, represents full compensation for the actual value of work completed. All work completed conforms to the terms of the Agreement and authorized changes. The guarantee for all work completed, including that work which was completed subsequent to the date of substantial completion, expires one (1) year from the date of the substantial completion.

DATE: _____

CONTRACTOR: _____

Signature

Title

FINAL ACCEPTANCE OF OWNER

I, as representative of the Owner, accept the above Final Certifications and authorize final payment in the amount of \$_____.

DATE: _____

OWNER: _____

Signature

Title

**SECTION 01770 – ATTACHMENT C
RELEASE AND WAIVER OF LIEN**

**GENERAL CONTRACTOR'S
RELEASE AND WAIVER OF LIEN**

For and in consideration of the receipt of final payment of \$ _____, in payment for labor and/or materials furnished, the undersigned does hereby waive, release and relinquish any and all claims, demands and rights of lien for all work, labor, materials, machinery or other goods, equipment or services done, performed or furnished for the construction located at the site hereinafter described, to wit:

Project: Sanitary Sewer Rehabilitation Project – Phase 4
Location: Krakow Street in the City of Derby, CT
Owner: City of Derby, WPCA

The undersigned further warrants and represents that any and all valid labor and/or materials and equipment bills, now due and payable on the property herein above described in behalf of the undersigned, have been paid in full to date of this waiver.

\$ _____
Total Paid to Date This Contract

\$ _____
Balanced Owed After This Payment

\$ _____
Total Billed to Date This Contract

Contractor

Witness Signature

By: _____

Witness Printed Name

Printed Name

Title: _____

Date

SUBCONTRACTOR'S
RELEASE AND WAIVER OF LIEN

For and in consideration of the receipt of full payment from the General Contractor _____ for labor and/or materials furnished for the referenced project, the undersigned does hereby waive, release and relinquish any and all claims, demands and rights of lien for all work, labor, materials, machinery or other goods, equipment or services done, performed or furnished for the construction located at the site hereinafter described, to wit:

Project: Sanitary Sewer Rehabilitation Project – Phase 4
Location: Krakow Street in the City of Derby, CT
Owner: City of Derby, WPCA

The undersigned further warrants and represents that any and all valid labor and/or materials and equipment bills, now due and payable on the property herein above described in behalf of the undersigned, have been paid in full to date of this waiver.

\$ _____
Balanced Owed to Subcontractor

Name of Subcontractor

Address of Subcontractor

By: _____

Printed Name: _____

Title: _____

Date: _____

Witness Signature

Witness Printed Name: _____

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SECTION 02428

CURED-IN-PLACE PIPE

PART 1 - GENERAL

1.01 WORK INCLUDED:

- A. This section covers installation of cured-in-place pipe as called for herein and on the drawings. The work includes furnishing all equipment, material and labor required to perform the services described herein.
- B. Contractor shall perform cleaning and Pre-CCTV inspection of each sewer segment proposed to receive a CIPP liner. Contractor shall provide copies of CCTV videos and reports to the Owner. Owner will perform post CCTV inspection videos including warranty CCTV video 1 year after installation.

1.02 RELATED WORK:

- A. Section 00890, PERMITS
- B. Section 01014, SCOPE AND SEQUENCE OF WORK
- D. Section 01330, SUBMITTALS
- E. Section 01331, DOCUMENTATION
- F. Section 01575, HANDLING EXISTING FLOWS

1.03 QUALITY ASSURANCE:

- A. The work described herein shall be performed by a company with not less than five (5) years of experience in providing the required services, employing experienced workers and experienced supervisory personnel. Supervisory personnel shall have not less than three (3) years of experience in providing the required services and shall be present at the jobsite during all work related to the required services.

1.04 REFERENCES:

The following standards form a part of this specification as referenced:

American Society for Testing and Materials (ASTM)

ASTM F1216 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube

The National Association of Sewer Service Companies (NASSCO)

Performance Specification Guideline for the Installation of Cured-in-Place Pipe (CIPP)

1.05 SYSTEM DESCRIPTION:

- A. Unless otherwise indicated herein, installation of cured-in-place pipe shall be carried out in accordance with ASTM F1216, Section 7.
- B. Curing of liner tube using hot water or steam shall be acceptable.
- C. The Contractor shall design all cured-in-place structural liners assuming fully deteriorated pipe conditions and a groundwater height above the crown of the pipe equal to one-half (50%) of the distance between the ground surface and the invert of the sanitary sewer line to be rehabilitated unless otherwise noted below.
- D. The Contractor may propose alternative cured-in-place processes and/or products for review and approval by the Engineer.
- E. The location, length, and approximate interior dimensions of the cured-in-place pipe to be installed are as shown on the drawings.
- F. The Contractor shall provide MSDS for all chemicals used in the lining process.

1.06 SUBMITTALS: IN ACCORDANCE WITH REQUIREMENTS OF SECTION 01330 SUBMITTALS, SUBMIT THE FOLLOWING:

- A. Prior to beginning the work, submit the following:
 - 1. Qualifications of the firm/personnel who will perform the Work.
 - 2. Descriptions of system proposed for handling existing flows, if necessary, during the procedures to be carried out.
 - 3. Description of the system, equipment and material proposed for the cured-in-place pipe.
 - 4. Manufacturer's warranty.
- B. Prior to beginning the work, the Contractor shall submit, a written plan for contacting homeowners whose service connections may be affected due to the installation of liner. Such plan is subject to approval by the Engineer and the Owner.
- C. The Contractor shall submit the following information for each inversion within 21 days following completion of the liner installation. The information shall also be included on external hard drives as described in Section 01331, DOCUMENTATION.

- Pre-inversion television inspection logs and videos
- Liner order sheet describing the material ordered
- Service connection reinstatement sign-off sheet
- Thermo couple log kept during inversion process
- Post-inversion television inspection logs and videos
- Material testing results

Information should be organized by inversion and two (2) copies shall be delivered.

1.07 WARRANTY:

The cured-in-place pipe shall be warranted against infiltration and defects for one (1) year from the date the project is accepted by the Owner. Defects shall include, but not be limited to, dry spots; lifts; wrinkles; fins; delaminations; pinholes (with or without infiltration); mineral deposits; staining; and infiltration. Defects shall also include reinstated non-active service connections and reinstated connections specifically identified on the drawings to not be reinstated.

PART 2 - PRODUCTS

2.01 MATERIALS:

- A. Materials used for the cured-in-place pipe shall meet the requirements of ASTM F1216.
- B. Cured-in-place pipe shall be as manufactured by Insituform Technologies, National Liner, CIPP Corp, or approved equal.
- C. Hydrophylic rubber gaskets shall swell to a minimum of 120% of its dry size when in contact with water and shall have a maximum swell size of 6 millimeters high. Gaskets must be adhered to the host pipe to ensure proper installation by either an adhesive sealant or mechanical fastener. Gaskets, fasteners and adhesives shall be as manufactured by Hydrotite, Adeka, LMK Technologies or approved equal.

PART 3 - EXECUTION

3.01 PIPE CLEANING AND INSPECTION:

Pipe cleaning and inspection shall be carried out in accordance with NASSCO requirements, and shall not be measured separately for payment.

3.02 FLOW CONTROL:

Flow control, if required, shall be in accordance with Section 01575, HANDLING EXISTING FLOWS.

3.03 WATER FOR CONSTRUCTION PURPOSES:

Availability of water for construction purposes shall be in accordance with Section 01140, SPECIAL PROVISIONS.

3.04 NOTIFICATION:

- A. The Contractor shall affix a written notice to the door of each home that has sewer service through the pipe being lined one week prior to the lining operation and again one day before the lining operation. A notice shall also be distributed following service connection reinstatement stating that the service connection has been restored to service.
- B. The written notice must be approved by the Engineer prior to its distribution.
- C. The printing and distribution of notices to the homeowners by the Contractor shall be considered incidental to the lining operation.

3.05 INSTALLATION:

- A. Each sewer segment shall be television inspected prior to the installation of the cured-in-place liner. The inspection shall be performed in “dry-pipe” conditions with no flow in the pipe. The pipe shall be clean and free of all obstructions prior to installation of the liner.
- B. Prior to installation of the cured-in-place pipe the Contractor shall install a hydrophilic rubber gasket on the inside of each pipe where it meets a manhole such that the hydrophilic rubber gasket is between the host pipe and the cured-in-place pipe. The annular space shall be made watertight at the ends of the liner in the manholes.
- C. The Contractor shall make television inspection camera available for confirming service connections to be reinstated. At the Engineer’s discretion, the Contractor shall dye test service connections to confirm that each service connection that should be reinstated is included on the attached Service Connection Reinstatement Certification Form. Contractor shall not reinstate inactive service connections. Contractor shall make reasonable efforts to confirm if a service is active, including review of available tie cards with the Resident Representative (Resident Representatives shall obtain available tie cards) and dye testing/television inspection of properties as required. No additional payment will be made for television inspection of mainline or service line from mainline to property in conjunction with dye testing of service connections.
- D. The Contractor shall install a pre-liner or grout infiltration sources if required to install the cured-in-place pipe.
- E. Installation of the cured-in-place pipe shall be in accordance with ASTM F1216, Section 7.

- F. After the liner has been cured in place, the Contractor shall reinstate and brush all active service connections as required by the Engineer. Branch connections to buildings shall be reinstated to a minimum of 95% of the inside diameter of the existing service connection without excavation, utilizing a remotely controlled cutting and brushing device, monitored by a video TV camera. No additional payment will be made for excavations for the purpose of reinstating connections and the contractor will be responsible for all cost and liability associated with such excavation and restoration work.
- G. The service connections to be reinstated for each inversion will be listed on the attached form (Service Connection Reinstatement Certification Form) and will be signed by an authorized representative of the Contractor.
- H. All reinstated service connections shall be sealed with grout in accordance with NASSCO requirements. The Contractor shall make certain that the annular space between the host pipe and the cured-in-place pipe is fully sealed with grout.
- I. Each sewer segment shall be television inspected after the liner installation and service grouting have been completed. The inspection shall be performed in “dry-pipe” conditions with no flow in the pipe. Post rehabilitation television inspection shall be performed prior to removing any sewer bypass equipment. Post rehabilitation television inspection shall be considered incidental to the lining process and shall not be measured separately for payment.

3.06 TESTING REQUIREMENTS:

- A. Cured-in-place pipe samples shall be prepared and tested by the Contractor in accordance with ASTM F1216 Section 8.1 unless otherwise stated in this section.
- B. The Contractor shall obtain samples for each pipe inversion.
- C. If field conditions or pipe shape prevent the Contractor from obtaining the samples as specified in ASTM F1216 Section 8.1 the samples shall be taken as required by the Engineer.
- D. An independent testing laboratory shall test the cured-in-place pipe samples and the results are to be sent directly to the Engineers Resident Project Representative within 21 calendar days following the completion of each inversion.
- E. The cost of obtaining the samples and testing shall be the sole responsibility of the Contractor and shall be considered incidental to the lining process.
- F. Inversions where the cured-in-place pipe samples that do not meet the requirements of ASTM D790 and D638 as indicated in ASTM F1216 Section 8 will be televised by the Contractor, as required by the Engineer, at no additional cost to the Owner, for review by the Engineer. Liner deemed unacceptable by the Engineer will be removed and

replaced at no additional cost to the Owner.

3.07 FIELD TESTING/INSPECTION:

- A. Approximately 1-year after installation, and prior to expiration of the warranty period, during periods of high groundwater, and at a time to be approved by the Engineer, the OWNER shall clean and television inspect each of the cured-in-place pipes in accordance with NASSCO requirements. The contractor shall repair any defects found in the cured-in-place pipe. Defects shall include, but not be limited to, dry spots; lifts; wrinkles; fins; delaminations; pinholes (with or without infiltration); mineral deposits; staining; and infiltration. Defects shall also include reinstated non-active service connections and reinstated connections specifically identified on the drawings to not be reinstated. Removal and replacement of cured-in-place pipe with defects shall be performed if required by the ENGINEER. Defects shall be repaired by cured-in-place pipe or short liners, as required by the ENGINEER. Short liners shall be a minimum of four (4) linear feet per defect location. The Contractor shall reseal the annular space between the sewer main and the cured-in-place pipe at manhole locations and service connections until there are no visible leaks through television inspection.
- B. All inspecting, resealing, cured-in-place lining, short lining, or other repairs within the warranty period shall be provided at no additional cost to the Owner and as required by the ENGINEER.

SERVICE CONNECTION REINSTATEMENT CERTIFICATION FORM

The Contractor shall review sewer tie cards, television inspection tapes, and perform dye tests as necessary to determine which service connections should be reinstated following installation of a Cured-in-Place Liner. Details regarding the location of each service connection that will be reinstated, including Manhole-to-Manhole reach, stationing, and clock position shall be recorded on this form.

Service Connections to be Reinstated (Clock Position)

Inversion # _____	MH _____ to MH _____	_____
	MH _____ to MH _____	_____
	MH _____ to MH _____	_____
	MH _____ to MH _____	_____
	MH _____ to MH _____	_____
	MH _____ to MH _____	_____
	MH _____ to MH _____	_____
	MH _____ to MH _____	_____

The Contractor shall be responsible for reinstatement of **all active** service connections following Cured-in-Place Lining. If active service connections are found, prior to the project being complete, not to have been reinstated, the Contractor shall reinstate them within one (1) calendar day of notification, at his sole expense. If active service connections are found, at any future date, not to have been reinstated, the Contractor shall reinstate them within three (3) calendar days of notification, at his sole expense.

Contractor _____

Signature

_____ Date

_____ Print Name

END OF SECTION

SECTION 02435

SEWER MANHOLE REHABILITATION

PART 1 - GENERAL

1.01 WORK INCLUDED:

- A. This Section covers the rehabilitation of sewer manholes as called for herein and on the drawings. It is the intent of this specification to provide for the waterproofing, sealing, and structural enhancement of existing manholes by chemical grout exterior sealing of sewer manhole inverts, walls, and corbels; and by application of a uniform cementitious layer of high-quality mortar. Additional manhole rehabilitation related items include install manhole frame and cover, raise manhole frame and cover, install manhole inflow dish, grout and patch manholes, and build manhole bench and invert, manhole root treatment, and install bolted and gasketed manhole frame and cover.
- B. The work shall include: elimination of infiltration by external chemical grout sealing; removal and patching of loose and/or unsound material; cleaning and preparation of surfaces; repair of invert, bench, and walls; and chemical grout sealing of the invert, bench, **walls**, and pipe connections; and spray application of a cementitious mix to form a liner. Other repairs shall be completed as indicated on the drawings and described herein.
- C. The contractor shall furnish all equipment, material and labor required to perform all manhole rehabilitations described in this specification.
- D. External grouting of inverts, bench, walls, corbel, and pipe connections shall be performed prior to application of cementitious mix.

1.02 QUALITY ASSURANCE:

- A. The work described herein shall be performed by a company with not less than five (5) years of experience in providing the required services, employing experienced workers and experienced supervisory personnel. Supervisory personnel shall have not less than three (3) years of experience in providing the required services and shall be present at the jobsite during all work related to the required services.

1.03 REFERENCES:

- A. The following standards form a part of this specification as referenced:

The National Association of Sewer Service Companies (NASSCO)
Performance Specification Guideline for Manhole Rehabilitation

American Society for Testing and Materials (ASTM)

ASTM C94	Ready-Mix Concrete
ASTM C109	Comprehensive Strength
ASTM C267	Chemical Resistance
ASTM C596	Shrinkage
ASTM C666, Method A	Freeze/Thaw Resistance
ASTM D4414	Standard Practice for Measurement of Wet Film Thickness for Organic Coatings
ASTM 543	Resistance of Plastics to Chemical Reagents
ASTM 638	Tensile Properties of Plastic
ASTM 695	Comprehensive Properties of Rigid Plastics
ASTM D790	Flexural Properties of Unreinforced and Reinforced Plastics

1.04 CEMENTITIOUS LINING SYSTEM DESCRIPTION:

- A. Unless otherwise indicated herein, sewer manhole sealing shall be carried out in accordance with the current edition of the Performance Specification Guideline for Manhole Rehabilitation (NASSCO).
- B. The Contractor may propose alternative processes and/or products for review and approval by the Engineer.
- C. The locations of the cementitious lining work to be completed are as shown on the drawings.

1.05 SUBMITTALS: IN ACCORDANCE WITH REQUIREMENTS OF SECTION 01330 SUBMITTALS, SUBMIT THE FOLLOWING:

- A. Prior to beginning the work, submit the following:
 - 1. Qualifications of the firm/personnel who will perform the work.
 - 2. Provide at least five (5) references of different projects in which at least 50 manholes have been rehabilitated by the firm within the past three (3) years.
 - 3. Description of the system, equipment and material with MSDS Data Sheets proposed for sewer manhole rehabilitation.
 - 4. Description of the system proposed for bypass pumping during the procedures to be carried out.
 - 5. Manufacturer's warranty

- B. Refer to Section 01331, DOCUMENTATION, for required documentation to be submitted.

1.06 WARRANTY:

- A. The manhole rehabilitation work performed shall be warrantied against infiltration and faulty workmanship and materials for a period of one (1) year after the project is accepted by the Owner.

PART 2 - PRODUCTS

2.01 REHABILITATION MATERIALS:

All products used for lining, sealing, patching, and cleaning shall be environmentally safe. The contractor shall submit MSDS Data Sheets for all materials used.

2.02 SEALING OF INVERT, STOPPING ACTIVE LEAKS AND EXTERIOR CHEMICAL SEALING:

The contractor shall use a chemical grout that is environmentally safe for the sealing of sewers. The chemical grout shall be in accordance with Part 2, Products, of the NASSCO Suggested Standard Specification for Pressure Testing and Grouting of Sewer Joints, Laterals and Lateral Connections (Using the Packer Method with Solution Grouts).

2.03 PATCHING MIX:

A quick-setting cementitious material shall be used as a patching mix and is to be mixed and applied according to the manufacturer's recommendation and shall have the following minimum requirements.

Compressive Strength	ASTM C-109	6 hr 1,400 psi
Shrinkage	ASTM C-596	0% AT 90% Relative Humidity

2.04 INFILTRATION CONTROL MIX:

A rapid-setting cementitious product specifically for leak control shall be used to stop water infiltration and shall be mixed and applied according to the manufacturer's recommendations and shall have the following minimum requirements.

Compressive Strength	ASTM C-109	1 hr 600 psi
Compressive Strength	ASTM C-109	24 hr 1,800 psi

2.05 LINER MIX:

- A. The cementitious liner mix shall be used to form a structural enhancing monolithic liner covering all interior manhole surfaces and shall have the following minimum requirements at 28 days:

Compressive Strength	ASTM C-109	6,000 psi
Shrinkage	ASTM C-596	0%, 90% humidity
Freeze/Thaw Resistance	ASTM C-666	No visible damage after 100 cycles

- B. The liner mix shall be applied in one monolithic layer.

2.06 BRICK MATERIALS:

- A. Brick shall be sound, hard, and uniformly burned brick, regular and uniform in shape and size, of compact texture, and satisfactory to the Engineer. Bricks shall comply with ASTM C32, for Grade SS, hard brick, except that the mean of five tests for absorption shall not exceed 8 percent by weight.
- B. Rejected brick shall be immediately removed from the work and brick satisfactory to the Engineer substituted.
- C. Mortar shall be composed of Portland cement, hydrated lime, and sand in which the volume of sand shall not exceed three times the sum of the volumes of cement and lime. The proportions of cement and lime shall be as directed and may vary from 1:1/4 for dense hard-burned brick to 1:3/4 for softer brick. In general, mortar for Grade SS Brick shall be mixed in the volume proportions of 1:1/2:4-1/2; Portland cement to hydrated lime to sand.
- D. Cement shall be Type II Portland cement as specified for concrete masonry.
- E. Hydrated lime shall be Type S conforming to ASTM C207.
- F. Sand shall comply with ASTM C144 specifications for "Fine Aggregate," except that all of the sand shall pass a No. 8 sieve.

2.07 CONCRETE:

- A. Cement shall be domestic Portland cement conforming to ASTM C150, Type II.
- B. Fine aggregate shall be washed natural sand conforming to ASTM C33.
- C. Coarse aggregate shall be well graded crushed stone conforming to ASTM C33, size No. 67.
- D. No admixtures shall be used unless approved by the Engineer in writing.

2.08 WATER:

Water used in mixing shall be potable.

2.09 DELIVERY, STORAGE, AND HANDLING:

- A. Materials shall be delivered to the site in the Manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. All materials shall be stored properly and in accordance with Manufacturer's instructions.

PART 3 - EXECUTION

3.01 SAMPLING AND TESTING OF LINER:

- A. The Owner reserves the right to test all materials.
- B. Products that fail to meet the requirements of these specifications shall not be incorporated in the work.

3.02 SURFACE PROTECTION:

- A. During progress of work, where appearance is important, adjacent areas or grounds which may be permanently discolored, stained, or otherwise damaged by dust and rebound, shall be adequately protected and, if contacted, shall be cleaned by early scraping, brushing or washing, as the surroundings permit.
- B. No street markings shall be removed or covered throughout the progress of work.

3.03 MANHOLE CHEMICAL ROOT TREATMENT:

The Contractor shall provide manhole chemical root treatment where indicated on the drawings. The chemical root treatment shall be in accordance with NASSCO requirements.

3.04 EXISTING FLOWS:

The Contractor shall divert flows as required for the work and in accordance with the requirements specified in Section 01575, HANDLING EXISTING FLOWS.

3.05 CEMENTITIOUS LINING:

A. Preparation

1. Remove all foreign material from the manhole wall and bench using a high-pressure water spray (minimum 5,000 psi). Loose and protruding brick, mortar, and concrete shall be removed using a mason's hammer and chisel and/or scraper. Fill any large voids with quick-setting patching mix. Surfaces to be repaired shall be clean and free of loose materials. Additional surface preparation shall be as recommended by the manufacturer of the materials to be applied.
2. Leaks shall be stopped using a chemical grout, which shall be applied as per the manufacturer's recommendations. Leaks may require weep holes drilled at the manhole base to localize the infiltration during the application, after which the weep holes shall be sealed with a chemical grout and plugged with the quick-setting infiltration control mix prior to the final liner application. Areas with evidence of previous leakage (e.g., mineral deposits) shall also be grouted.
3. All pipe connections in brick and block manholes shall be grouted regardless of whether they are leaking or have signs of previous leakage. Grout ports shall be located near the pipe connections to ensure the sealing material is injected at the manhole/pipe connections. Grout ports shall also be located and drilled in the bench and invert for all brick and block manholes as necessary to seal the manhole base.

B. Invert Sealing

1. The Contractor shall carry out all work as described in the latest edition of the Performance Specification Guideline for Manhole Rehabilitation, Section 3.2C (NASSCO) using sealing materials and procedures accepted by the Engineer.
2. Grout ports shall be located and drilled in the bench and invert as necessary to seal the invert and manhole base. Grout ports shall also be located and drilled at the manhole/pipe connections.
3. A quick setting patch mix shall be troweled uniformly not to exceed ½-inch, onto the damaged invert extended out onto the base of the manhole sufficiently to tie into the structurally enhanced monolithic liner to be applied.

C. Interior Sealing

1. Interior lining of the manholes shall be conducted only after all other manhole rehabilitations have been completed.

2. Unless otherwise indicated herein, the Contractor shall carry out all work as described in the Performance Specification Guideline for Manhole Rehabilitation, Section 3.2 (NASSCO) using lining materials and procedures accepted by the Engineer.
3. Preparation, as described in section 3.05A, shall be completed prior to the placement of the cementitious liner.
4. Sealant shall not be placed on a frozen surface or during freezing weather. Sealant shall not be placed when it is anticipated that the temperature during the following 24 hours will drop below 32 degrees, Fahrenheit.
5. Pipes and/or service connections shall be temporarily plugged prior to the application of the cementitious manhole interior liner. A flash coat of the liner material shall be applied three (3) inches into each service connection. Temporary plugs shall be removed once the liner has cured sufficiently to prevent erosion of the new liner.
6. Thickness shall be verified with a wet gauge at random points of the new interior surfaces as required by the Engineer. Minimum thickness of one-half (½) inch is required.
7. Application shall be with low velocity, continuous flow equipment to prevent the adverse effects of rebound. A smooth trowel finish shall be applied.
8. The Contractor shall prohibit debris from entering the invert by either covering the invert or plugging during application.

D. Digital Photographs

1. The Contractor shall take a digital photograph of the interior of each manhole, before and after rehabilitation, in JPEG format. Filenames shall contain subarea and manhole designations (e.g. "G-05A-001"). Digital photographs shall have a minimum resolution of four (4) megapixels.

3.06 RAISE MANHOLE FRAME AND COVER:

Manhole frame and cover shall be removed and courses of brick added to raise the manhole frame and cover two (2) feet above existing grade. The manhole frame and cover shall be secured on top of the new bricks creating a watertight seal. The exterior of the structure exposed above grade shall be covered with a minimum 2-inch coating of the LINER MIX. The liner mix shall be applied as described in Section 3.05 D, Interior Sealing.

3.07 BUILD MANHOLE INVERT AND BENCH:

- A. Existing manhole bench and invert (including debris, deteriorated brick, block, and mortar) shall be removed and disposed of.
- B. Bricks shall be moistened by suitable means, as required, until they are neither so dry as to absorb water from the mortar nor so wet as to be slippery when laid.
- C. Each brick shall be laid as a header in a full bed and joint of mortar without requiring subsequent grouting, flushing or filling, and shall be thoroughly bonded as required.
- D. Channels and shelves shall be constructed of brick and concrete as shown on the Drawings. The brick lined channels shall correspond in shape with the lower half of the pipe. The top of the shelf shall be set at the elevation of the crown of the highest pipe and shall be sloped 1 inch per foot to drain toward the flow through channel. Brick surfaces exposed to sewage flow shall be constructed with a nominal 2-inch by 8-inch face exposed (i.e. bricks on edge).

3.08 FIELD TESTING/INSPECTION:

- A. Prior to the expiration of the warranty period, the Contractor shall inspect each of the sewer manholes rehabilitated during this project in accordance with the Performance Specification Guideline for Manhole Rehabilitation (NASSCO) at a timetable to be approved by the Engineer. The Contractor shall repair any defects found until there are no visible leaks.
- B. If the groundwater level is not, in the opinion of the Engineer, high enough for an accurate visual inspection, the Contractor shall test 100% of the original manhole rehabilitation work using exfiltration or vacuum methods as described in ASTM C-1244. The manholes in the test sample will be selected and approved by the Engineer and will consist of manholes from throughout the project area that are representative of the manhole rehabilitation work originally performed. Any manholes failing the warranty test shall be sealed and retested until the test is passed and/or the results are satisfactory to the Engineer.
- C. If the initial failure rate of tested manholes is less than 5%, the work will be considered satisfactory and no further testing will be required.
- D. If the failure rate in the initial test sample equals or exceeds 5%, an additional and equivalent test sample of the original manhole rehabilitation work will be selected and approved by the Engineer. Additional test samples shall be taken until the failure rate of less than 5% is met. No previously tested manholes can be included in a subsequent test sample.

- E. Should all of the manhole rehabilitation work fail to meet the less than 5% failure rate in each of the test samples, the Contractor will be required to repeat the inspection procedure following resealing of the structures in question.
- F. All inspecting, testing, and reworking within the warranty period shall be provided at no additional cost to the Owner.

END OF SECTION

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SECTION 02436

CURED-IN-PLACE LATERAL LINER

PART 1 - GENERAL

1.01 WORK INCLUDED:

- A. This section covers installation of cured-in-place lateral liners as called for herein and on the drawings. The work includes furnishing all equipment, material and labor required to perform the services described herein.

1.02 RELATED WORK:

- A. Section 01014, SCOPE AND SEQUENCE OF WORK
- B. Section 01330, SUBMITTALS
- C. Section 01331, DOCUMENTATION
- D. Section 01575, HANDLING EXISTING FLOWS

1.03 QUALITY ASSURANCE:

- A. The work described herein shall be performed by a company with not less than two (2) years of experience in providing the required services, employing experienced workers and experienced supervisory personnel. Supervisory personnel shall have not less than two (2) years of experience in providing cured-in-place services and shall be present at the jobsite during all work related to the required services.

1.04 REFERENCES:

The following standards form a part of this specification as referenced:

American Society for Testing and Materials (ASTM)

ASTM F1216 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube

The National Association of Sewer Service Companies (NASSCO)
Recommended Specifications for Sewer Collection System Rehabilitation
(Current Edition).

1.05 SYSTEM DESCRIPTION:

- A. Unless otherwise indicated herein, installation of cured-in-place lateral liners shall be carried out in accordance with ASTM F1216, Section 7.
- B. Curing of liner tube using ambient-temperature air, hot water, or steam shall be acceptable.
- C. The Contractor shall design all cured-in-place lateral liners assuming fully deteriorated pipe conditions and a groundwater height above the crown of the pipe equal to one-half (50%) of the distance between the ground surface and the invert of the lateral (at its connection to the mainline) to be rehabilitated unless otherwise noted below.
- D. Lateral liners shall be a one-piece jointless polyester felt tube that will create a watertight seal at the mainline interface and extend continuously over the entire length of the lateral liner. Cured-in-place lateral liners in mainline pipes 12-inch diameter and smaller shall include a full wrap at the mainline.
- E. Termination of the lateral liner shall be at the property line, or a maximum of 30 linear feet from the mainline if the property line is greater than 30 feet from the mainline. Lateral lining shall be accomplished without a cleanout when possible. No additional payment will be made for the installation of a cleanout. Minimum liner length shall be five (5) feet from the connection at the mainline.
- D. The Contractor may propose alternative cured-in-place processes and/or products for review and approval by the Engineer.
- E. The location of the cured-in-place lateral liners to be installed are as shown on the drawings.
- F. The Contractor shall provide MSDS for all chemicals used in the lining process.

1.06 SUBMITTALS: IN ACCORDANCE WITH REQUIREMENTS OF SECTION 01330 SUBMITTALS, SUBMIT THE FOLLOWING:

- A. Prior to beginning the work, submit the following:
 - 1. Qualifications of the firm/personnel who will perform the Work.
 - 2. Descriptions of system proposed for handling existing flows, if necessary, during the procedures to be carried out.
 - 3. Description of the system, equipment and material proposed for the cured-in-place lateral liner.
 - 4. Manufacturer's warranty.

- B. Prior to beginning the work, the Contractor shall submit, a written plan for contacting homeowners whose service connections will be affected due to the installation of the liner. Such plan is subject to approval by the Engineer and the Owner.
- C. The Contractor shall submit the following information for each inversion within 21 days following completion of the liner installation.
 - Pre-inversion television inspection logs and video files (Video files shall also be included on external hard drives as described in Section 01331, DOCUMENTATION)
 - Liner order sheet describing the material ordered
 - Thermo couple log kept during inversion process (if relevant)
 - Post-inversion television inspection logs and video files (Video files shall also be included on external hard drives as described in Section 01331, DOCUMENTATION)
 - Material testing results

Information should be organized by mainline sewer segment and stationing and two (2) copies shall be delivered.

1.07 WARRANTY:

The cured-in-place lateral liner shall be warranted against infiltration and faulty workmanship and materials for one (1) year from the date the project is accepted by the Owner.

PART 2 - PRODUCTS

2.01 MATERIALS:

- A. Materials used for the cured-in-place lateral liner shall meet the requirements of ASTM F1216.
- B. Cured-in-place lateral liners shall be manufactured by Layne Inliner, LLC or approved equal.

PART 3 - EXECUTION

3.01 PIPE CLEANING AND INSPECTION:

- A. Cleaning and inspection of the lateral shall be accomplished from the mainline pipe.
- B. The lateral shall be cleaned to the property line, or a maximum of 30 linear feet from the mainline if the property line is greater than 30 feet from the mainline, to ensure the lateral

is ready for lining. The Contractor shall verify, prior to liner installation, that all debris has been removed from the lateral.

- C. The interior of the lateral shall be carefully inspected to determine the location of any conditions which may prevent proper installation of the lateral liner.

3.02 FLOW CONTROL:

Flow control, if required, shall be in accordance with Section 01575, HANDLING EXISTING FLOWS.

3.03 WATER FOR CONSTRUCTION PURPOSES:

Availability of water for construction purposes shall be in accordance with Section 01140, SPECIAL PROVISIONS.

3.04 NOTIFICATION:

- A. The Contractor shall affix a written notice to the door of each home that has sewer service through the lateral being lined one week prior to the lining operation and again one day before the lining operation. A completion notice shall also be distributed following reconnection of sewer service.
- B. The written notice must be approved by the Engineer prior to its distribution.
- C. The printing and distribution of notices to the homeowners by the Contractor shall be considered incidental to the lining operation.

3.05 INSTALLATION:

- A. Each lateral shall be television inspected prior to the installation of the lateral liner. The inspection shall be performed in “dry-pipe” conditions with no flow in the pipe. The pipe shall be clean and free of all obstructions prior to installation of the liner.
- B. Installation of the cured-in-place lateral liner shall be in accordance with ASTM F1216, Section 7.
- C. No additional payment will be made for excavations for the purpose of reinstating connections or repairing improperly installed liners and the contractor will be responsible for all cost and liability associated with such excavation and restoration work.
- D. The Contractor shall make certain that the connection between the mainline pipe and the lateral liner is watertight.
- E. Each lateral shall be television inspected after the liner installation has been completed. The inspection shall be performed in “dry-pipe” conditions with no flow in the pipe. Post

rehabilitation television inspection shall be performed prior to removing any sewer bypass equipment. Post rehabilitation television inspection shall be considered incidental to the lining process and shall not be measured separately for payment.

3.06 TESTING REQUIREMENTS:

- A. Cured-in-place pipe samples shall be prepared and tested by the Contractor in accordance with ASTM F1216 Section 8.1 unless otherwise stated in this section.
- B. The Contractor shall obtain samples for all liner inversions, as required by the Engineer.
- C. An independent testing laboratory shall test the cured-in-place lateral liner samples and the results are to be sent directly to the Engineers Resident Project Representative within 21 calendar days following the completion of each inversion.
- D. The cost of obtaining the samples and testing shall be the sole responsibility of the Contractor and shall be considered incidental to the lining process.
- E. Inversions where the cured-in-place lateral liner samples that do not meet the requirements of ASTM D790 and D638 as indicated in ASTM 1216 Section 8 will be televised by the Contractor, as required by the Engineer, at no additional cost to the Owner, for review by the Engineer. Liners deemed unacceptable by the Engineer will be removed and replaced at no additional cost to the Owner.

3.07 FIELD TESTING/INSPECTION:

- A. Prior to expiration of the warranty period, during periods of high groundwater, and at a time to be approved by the Engineer, the Contractor shall clean and television inspect each of the cured-in-place lateral liners. The contractor shall repair any defects found in the cured-in-place lateral liners.
- B. All inspecting and resealing or relining within the warranty period shall be provided at no additional cost to the Owner.

END OF SECTION

SECTION 02443

SERVICE CONNECTION REHABILITATION

PART 1 - GENERAL

1.01 WORK INCLUDED:

- A. This Section covers the rehabilitation of service connections, including cutting of protruding services, television inspection and testing of services, and grouting of services as called for herein and on the drawings. The work includes furnishing all equipment, material and labor required to perform the services described herein.

1.02 RELATED WORK:

- A. Section 01014, SCOPE AND SEQUENCE OF WORK
- B. Section 01330, SUBMITTALS
- C. Section 01331, DOCUMENTATION
- D. Section 01575, HANDLING EXISTING FLOWS
- E. Section 02428, CURED-IN-PLACE PIPE

1.03 QUALITY ASSURANCE:

- A. The work described herein shall be performed by a company with not less than five (5) years of experience in providing the required services, employing experienced workmen and experienced supervisory personnel. Supervisory personnel shall have not less than three (3) years of experience in providing the required services and shall be present at the jobsite during all work related to the required services.

1.04 REFERENCES:

- A. The following standards form a part of this specification as referenced:

The National Association of Sewer Service Companies (NASSCO)

Suggested Standard Specification for Pressure Testing and Grouting of Sewer Joints,
Laterals and Lateral Connections (Using the Packer Method with Solution Grouts)

American Society of Testing and Materials (ASTM)

ASTM F2454 Standard Practice for Sealing Lateral Connections and Lines from the Mainline Sewer Systems by the Lateral Packer Method, Using Chemical Grouting

1.05 SYSTEM DESCRIPTION:

- A. Unless otherwise indicated herein, service connection rehabilitation shall be carried out in accordance with Lateral Connection Sealing from the Mainline by Packer Injection Grouting, Section 3.10, of the NASSCO Suggested Standard Specification for Pressure Testing and Grouting of Sewer Joints, Laterals and Lateral Connections (Using the Packer Method with Solution Grouts).
- B. The Contractor may propose alternative processes and/or products for review and approval by the Engineer.
- C. The location of the service connection rehabilitations are indicated on the drawings.

1.06 SUBMITTALS: IN ACCORDANCE WITH REQUIREMENTS OF GENERAL SPECIFICATIONS, SUBMIT THE FOLLOWING:

- A. Prior to beginning the work, submit the following:
 - 1. Qualifications of the firm/personnel who will perform the work.
 - 2. Descriptions of system proposed for handling existing flows, if necessary, during the procedures to be carried out.
 - 3. Description of the system, equipment and material proposed for the service connection rehabilitations.
 - 4. Manufacturer's warranty.
 - 5. Submit SDS Data Sheets for proposed chemicals to be used.
- B. Refer to Section 01331, DOCUMENTATION, for documentation required to be submitted.

1.07 WARRANTY:

- A. The service connection rehabilitations shall be warrantied against infiltration and faulty workmanship and materials for one year from the date the project is accepted by the Owner.

PART 2 - PRODUCTS

2.01 CHEMICAL GROUT:

- A. The Contractor shall use chemical grout which is environmentally safe for the sealing of sewers. The chemical sealing materials shall be used in accordance with Part 2, Products, of the latest edition of NASSCO Suggested Standard Specification for Pressure Testing and Grouting of Sewer Joints, Laterals and Lateral Connections (Using the Packer Method with Solution Grouts). All other products used for sealing, patching and cleaning of sewers shall also be environmentally safe.

PART 3 - EXECUTION

3.01 PIPE CLEANING AND INSPECTION:

- A. Pipe cleaning and inspection shall be carried out in accordance with Section 02440, SEWER CLEANING, INSPECTION, TESTING AND SEALING.

3.02 FLOW CONTROL:

- A. Flow control, if required, shall be in accordance with Section 01575, HANDLING EXISTING FLOWS.

3.03 CUTTING OF PROTRUDING SERVICE CONNECTIONS:

- A. The Contractor shall cut protruding service connections where called for on the drawings. The protruding services shall be cut flush with the wall of the sewer, using either a lateral cutter or grinder.
- B. After the protruding services are cut, the service connections shall be grouted. No additional payment shall be made for grouting service connections.

END OF SECTION