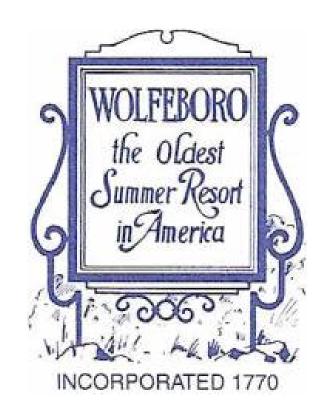
CONTRACT DOCUMENTS AND SPECIFICATIONS FOR THE

GREEN STREET ROADWAY RECONSTRUCTION PROJECT

CARROLL COUNTY WOLFEBORO, NEW HAMPSHIRE



PREPARED BY:

TOWN OF WOLFEBORO, NEW HAMPSHIRE DEPARTMENT OF PUBLIC WORKS

CONSULTING ENGINEER:

STANTEC CONSULTING SERVICES, INC.



MARCH 2023

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APPENDICES

Appendix A "Green Street Roadway Reconstruction Project" prepared by Stantec Consulting Services Inc., dated March 2023, consisting of 10 drawings (under separate

cover) and applicable NHDOT Standard Drawings.

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Division 0 – Bidding/Contract Requirements

SECTION 00020 INVITATION TO BID

Green Street - Roadway Reconstruction Project

Sealed Bids for the Green Street Roadway Reconstruction Project will be received at the office of the Finance Department, 84 South Main St, PO Box 629 Wolfeboro, NH 03894 until **2:00 pm on Monday, May 1, 2023**, at which place, and time said Bids will be opened and read aloud. No electronic bids will be accepted.

The Base Bid - Work includes reconstruction of approximately 700 linear feet of roadway reconstruction including minor drainage improvements, new water main and services, new gravels, and 2.5" Hot Bituminous Binder Course paving.

Bid Alternate #1 – Work includes the 1.5" wearing course on Green Street and 1.5" gravel shoulders.

Each bid shall be accompanied by a bid security in the form of a certified treasurer's or cashier's check or bid bond in the sum of five (5) percent of the Bid Price. Successful bidder must furnish 100 percent Construction Performance Bond, 100 percent Construction Payment Bond, and a Warranty Bond in the amount of \$50,000.

Contract Documents will be sent to Contractor's, in electronic format via e-mail, on or after <u>APRIL 10, 2023</u> from the office of <u>Stantec Consulting Services Inc. 5 Dartmouth Drive, Suite 200, Auburn, New Hampshire 03032.</u> To obtain Contract Documents, please email <u>Jonathan.Bourque@Stantec.com</u> or call 603-505-1356.

The Town reserves the right to add bid alternates at any time during the contract. No bidder may withdraw his/her Bid for a period of 60 calendar days after the actual date of the opening of the Bids. Complete instructions for filing Bids are included in the Instructions to Bidders.

An <u>Optional</u> pre-bid conference will be held on site at Green Street, Wolfeboro NH 03894, at <u>9:00 am on Tuesday, April 18, 2023.</u> Representatives of the Owner will be present to discuss the Project. Owner will transmit to all prospective Bidders of record such Addenda, as Owner considers necessary in response to questions arising at the conference. Oral statements made at the pre-bid conference may not be relied upon and will not be binding or legally effective.

The Owner reserves the right to reject any or all Bids, should the Owner deem it to be in the public interest to do so.

TOWN OF WOLFEBORO, NEW HAMPSHIRE DEPARTMENT OF PUBLIC WORKS

SECTION 00100

INSTRUCTIONS TO BIDDERS

- Article 1. Receipt and Opening of Bids
- Article 2. Deposit on Drawings and Documents
- Article 3. Ability and Experience of Bidder
- Article 4. Information not Guaranteed
- Article 5. Subsurface Data
- Article 6. Easements
- Article 7. Other Contracts
- Article 8. Bidders to Investigate
- Article 9. Questions Regarding Drawings and Documents
- Article 10. Blank Form for Bid
- Article 11. Subcontractors
- Article 12. Alternates
- Article 13. Bid Security
- Article 14. Withdrawal of Bids
- Article 15. Right to Reject Bids
- Article 16. Comparison of Bids
- Article 17. Reduction in Scope of Work
- Article 18. Contract Bonds
- Article 19. Execution of Agreement
- Article 20. Insurance Certificates
- Article 21. Sales and Use Tax
- Article 22. Safety and Health Regulations
- Article 23. Pre-Bid Conference
- Article 24. Basis of Award

1. RECEIPT AND OPENING OF BIDS

- 1.1 Sealed Bids for the work of this Contract will be received at the time and place indicated in the Invitation to Bid. Sealed envelopes containing the bids shall be addressed to the OWNER, and designated as: PROPOSAL FOR THE GREEN STREET, ROADWAY RECONSTRUCTION PROJECT.
- 1.2 OWNER may consider informal any Bid not prepared and submitted in accordance with the provisions hereof.
- 1.3 Bidders are cautioned that it is the responsibility of each individual Bidder to assure that his Bid is in the possession of the responsible official or his designated alternate prior to the stated time and at the place of the Bid opening. Owner is not responsible for Bids delayed by mail and/or delivery services, of any nature.

INSTRUCTIONS TO BIDDERS 00100 - 1

- 1.4 If forwarded by mail, the sealed envelope containing the bid must be enclosed in another envelope and addressed to the Director of Public Works at the address provided in the Invitation to Bid and the contents of the envelope clearly marked.
- 2. DEPOSIT ON DRAWINGS AND DOCUMENTS (NOT USED)

3. ABILITY AND EXPERIENCE OF BIDDER

- 3.1 No award will be made to any Bidder who cannot satisfy the Owner that he has sufficient ability and experience in this class of work and sufficient capital and plant to enable him to prosecute and complete the Work successfully within the time named. The Owner's decision or judgment on these matters shall be final, conclusive, and binding.
- 3.2 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.

4. INFORMATION NOT GUARANTEED

- 4.1 All information given on the Drawings or in the other 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 to be accurate or all inclusive.
- 4.2 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 on the Drawings or in the other Contract Documents.
- 4.3 It is agreed further and understood that no Bidder or contractor shall use or be entitled to use any of the information made available to him or obtained in any examination made by him in any manner as a basis of or ground 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.

SUBSURFACE INVESTIGATION

- 5.1 No test pits were performed for this project.
- 5.2 The Contractor shall become familiar with the existing physical conditions and limits of work at the project site. Before submitting a Bid, Bidders may, at their own expense and with permission of the Owner, make such additional investigations and tests as they may deem necessary to determine the Bid for performance of the work in accordance with the time, price and other terms and conditions of the Contract Documents,
- 5.3 The submission of a Bid will constitute an incontrovertible representation that the Bidder has complied with every requirement of this Article 5 and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the work.

EASEMENTS

- 6.1 As indicated on the drawings, the intent is to conduct all work within the existing roadway right of way which is defined by stone walls.
- 6.2 On all other lands, the Contractor has no rights unless he obtains easements from the proper parties.

7. OTHER CONTRACTS

- 7.1 It is essential that all parties interested in the project cooperate to the end that the entire project will be brought to a successful conclusion as rapidly as possible, but the Owner cannot guarantee that no interference or delay will be caused thereby. Interference and delay resulting from such cooperation shall not be the basis of claims against the Owner.
- 7.2 In as much as the Owner will be undertaking other construction near this project, Bidders should anticipate coordinating their efforts with possible simultaneous construction projects.

8. BIDDERS TO INVESTIGATE

- 8.1 Bidders must satisfy themselves by personal examination of the site of the Work and by such other means as they may wish, as to the actual conditions there existing, the character and requirements of the Work, the difficulties attendant upon its execution, and the accuracy of all estimated quantities stated in the Bid.
- 9. QUESTIONS REGARDING DRAWINGS AND DOCUMENTS

- 9.1 In general, no answer will be given to prospective Bidders in reply to an oral question if the question involves an interpretation of the intent or meaning of the Drawings or other Contract Documents, or the equality or use of products or methods other than those designated or described on the Drawings or in the Specifications. Any information given to Bidders other than by means of the Drawings and other Contract Documents, including Addenda, as described below, is given informally, for information and the convenience of the Bidder only and is not guaranteed. The Bidder agrees that such information shall not be used as the basis of nor shall the giving of any such information entitle the Bidder to assert any claim or demand against the Owner or the Engineer on account thereof.
- 9.2 To receive consideration, such questions shall be submitted in writing to the Owner at least seven days before the established date for receipt of Bids. The Owner will neither approve nor disapprove particular products prior to the opening of Bids.
- 9.3 The Owner will set forth as Addenda, which shall become a part of the Contract Documents, such questions received as above provided as in his sole judgment are appropriate or necessary and his decision regarding each. At least two days prior to the receipt of Bids, he will fax a copy of these Addenda to those prospective Bidders and parties known to have taken out sets of the Drawings and Contract Documents.
- 9.4 The Contractor agrees to use and base his/her Bid on the products and methods designated or described in the Specifications as amended by the Addenda.

10. BLANK FORM FOR BID

10.1 All Bids must be upon the blank form for Bid annexed hereto, state the proposed price of each item of the Work, both in words and in figures, and be signed by the Bidder with his business address and place of residence. In case of a discrepancy between the words and figures, the words shall govern.

11. SUBCONTRACTORS

- 11.1 The Bidder is advised that any person, firm, supplier, or other party to whom it is proposed to award a subcontract under this contract must be acceptable to the Owner.
- 11.2 The low Bidder shall supply the names and addresses of major material and equipment suppliers when requested to do so by the Owner.

11.3 All Bids shall include a listing of Subcontractors that are anticipated to be awarded a subcontract under this contract, and shall identify what work the listed subcontractor will be performing.

12. ALTERNATES

12.1 Each bid shall include bids for each Alternate as described in these documents and on the Contract Drawings.

13. BID SECURITY

- 13.1 Each Bid must be accompanied by a certified check on, or a treasurer's or cashier's check issued by, a responsible bank or trust company and payable to the order of the Owner or by a Bid Bond prepared on the form of Bid Bond attached hereto duly executed and acknowledged by the Bidder, as Principal, and by a surety company qualified to do business in The State of New Hampshire and satisfactory to the Owner, as Surety. The check or Bid Bond shall be in the sum of 5% of the Bid amount and shall be enclosed in the sealed envelope containing the Bid.
- 13.2 Each such check or Bid Bond may be held by the Owner as security for the fulfillment of the Bidder's agreements as hereinabove set forth and as set forth in the Bid. Should the Bidder fail to fulfill such agreements his Bid check shall become the property of the Owner or if a Bid Bond was furnished the Bid Bond shall become payable to the Owner, as liquidated damages; otherwise, the Bid check shall be returned to the Bidder as hereinafter provided, or if the security is a Bid Bond, the Bid Bond shall become null and void.
- 13.3 Bid security's will be returned to all except the three lowest Bidders within five business days after the opening of Bids, and to the three lowest Bidders within five business days after the Owner and the accepted Bidder have executed the AGREEMENT. In the event that the AGREEMENT has not been executed by both the accepted Bidder and the Owner within 60 consecutive days after the opening of Bids, the Bid security will be returned promptly upon demand of any Bidder who has not been notified of the acceptance of his Bid.
- 13.4 Bid security's accompanying Bids which are rejected will be returned within five business days after rejection.
- 13.5 None of the three lowest Bids shall be deemed rejected, notwithstanding acceptance of any Bid, until the AGREEMENT has been executed by both the Owner and the accepted Bidder.

14. WITHDRAWAL OF BIDS

- 14.1 Except as hereinafter in this subsection otherwise expressly provided, once his Bid is submitted and received by the Owner for consideration and comparison with other Bids similarly submitted, the Bidder agrees that he may not and will not withdraw it within 60 calendar days after the actual date of the opening of Bids.
- 14.2 Upon proper written request and identification, Bids may be withdrawn only as follows:
 - 1. At any time prior to the designated time for the opening of Bids.
 - 2. Provided the Bid has not theretofore been accepted by the Owner, at any time subsequent to the expiration of the period during which the Bidder has agreed not to withdraw his Bid.
- 14.3 Unless a Bid is withdrawn as provided above, the Bidder agrees that it shall be deemed open for acceptance until the AGREEMENT has been executed by both parties thereto or until the Owner notifies a Bidder in writing that his Bid is rejected or that the Owner does not intend to accept it, or returns his Bid deposit. Notice of acceptance of a Bid shall not constitute rejection of any other Bid.

RIGHT TO REJECT BIDS

- 15.1 The Owner reserves the right to reject any or all Bids, should the Owner deem it to be in the public interest to do so.
- 15.2 The Owner may reject Bids which in its sole judgment are incomplete, conditional, obscure or not responsive or which contain additions not called for, erasures not properly initialed, alterations, or similar irregularities, or the Owner may waive such omissions, conditions or irregularities.
- 15.3 The Owner may reject Bids which in its sole judgment are unbalanced to the potential detriment of the Owner. An unbalanced bid is defined as a bid that generates reasonable doubt that award to the Bidder will result in the lowest ultimate cost to the Town of Wolfeboro or a bid that contains lump sum or unit items that do not reflect reasonable costs plus a reasonable proportionate share of the bidder's anticipated profit, overhead costs and other interests.
- 15.4 If, at the time this contract is to be awarded, all Bids submitted by responsible Bidders exceed the amount of the funds available to finance the contract, the Owner may reject all bids or take any other action deemed to be in the best interest of the Owner.

16. COMPARISON OF BIDS

16.1 The Owner agrees to examine and consider each Bid submitted in consideration of the Bidder's agreements, as hereinabove set forth and as set forth in the Bid.

17. REDUCTION IN SCOPE OF WORK

17.1 The Owner reserves the right to decrease the scope of the work to be done under this contract and to omit any work in order to bring the cost within available funds. To this end, the Owner reserves the right to reduce the quantity of any items or omit all of any items as set forth in the Bid, either prior to executing the contract or at any time during the progress of the work. The Owner further reserves the right, at any time during the progress of the work, to restore all or part of any items previously omitted or reduced. Exercise by the Owner of the above rights shall not constitute any ground or basis of claim for damages or for anticipated profits on the work omitted.

18. CONTRACT BONDS

18.1 The Bidder whose Bid is accepted agrees to furnish the Contract Bonds in the forms which follow in Section No. 00610 Performance Bond and Section 00620 Payment Bond, each in the sum of the full amount of the Contract and Section 00621 Warranty Bond in the sum of Fifty Thousand Dollars (\$50,000.00) all duly executed by the said Bidder as Principal and by a surety company qualified to do business under the laws of the State of New Hampshire and satisfactory to the Owner, as Surety, for the faithful performance of the Contract and payment for labor and materials. The premiums for such Bonds shall be paid by the Contractor.

19. EXECUTION OF AGREEMENT

19.1 The Bidder whose Bid is accepted will be required and agrees to duly execute the AGREEMENT and furnish the required Contract Bonds within the time limit stated in the Bid after notification that the AGREEMENT is ready for signature.

20. INSURANCE CERTIFICATES

- 20.1 The Contractor will not be permitted to start any construction work until he has submitted certificates covering all insurances called for under Supplementary Conditions.
- 21. SALES AND USE TAX (NOT USED)
- 22. SAFETY AND HEALTH REGULATIONS

INSTRUCTIONS TO BIDDERS 00100 - 7

This project is subject to all of the Safety and Health Regulations (CFR 29 Part 1926 and all subsequent amendments) as promulgated by the U.S. Department of Labor on June 24, 1974. Contractors are urged to become familiar with the requirements of these regulations.

PRE-BID CONFERENCE

A pre-Bid conference may be held by the Owner at a time and location indicated in the Invitation to Bid. Representatives of the Owner will be present to discuss the Project. Owner will transmit to all prospective Bidders of record such Addenda, as Owner considers necessary in response to questions arising at the conference. Oral statements made at the pre-Bid conference may not be relied upon and will not be binding or legally effective.

BASIS OF AWARD

- 24.1 The Owner reserves the right to award the contract to a Bidder that is not the lowest responsible and responsive Bidder. Although the Bid price will be a substantial factor in the Owner's award, the final award will be based on the Owner's determination, in its sole discretion, of which Bid will be in the best interest of the Owner.
- 24.2 The Owner will evaluate the Bid price submitted by Bidders based on unit prices and any combination of the total base bid and add or deduct alternative amounts in such a manner as is deemed to be in the best interests of the Owner.

END OF SECTION 00100

SECTION 00301A

BID

To the Town of Wolfeboro, New Hampshire, herein called the Owner, acting by and through its Department of Public Works, for the Green Street Roadway Reconstruction Project:

The Undersigned, as bidder, herein referred to as singular and masculine, declares as follows:

- (1) The only parties interested in this BID as Principals are named herein;
- (2) this BID is made without collusion with any other person, firm, or corporation;
- (3) no officer, agent, or employee of the Owner is directly or indirectly interested in this BID:
- (4) he has carefully examined the site of the proposed Work and fully informed and satisfied himself as to the conditions there existing, the character and requirements of the proposed Work, the difficulties attendant upon its execution and the accuracy of all estimated quantities stated in this BID, and he has carefully read and examined the Contract Documents therein referred to and knows and understands the terms and provisions thereof;
- (5) he understands that information relative to subsurface and other conditions, natural phenomena, existing pipes and other structures (surface and/or subsurface) has been furnished only for his information and convenience without any warranty or guarantee, expressed or implied, that the subsurface and/or other conditions, natural phenomena, existing pipes and other structures (surface and/or subsurface) actually encountered will be the same as those shown in the Contract Documents and he agrees that he shall not use or be entitled to use any such information made available to him through the Contract Documents or otherwise or obtained by him in his own examination of the site, as a basis of or ground for any claim against the Owner or the Engineer arising from or by reason of any variance which may exist between the aforesaid information made available to or acquired by him and the subsurface and/or other conditions, natural phenomena, existing pipes and other

BID

00301A -1

structures (surface and/or subsurface) actually encountered during the construction work, and he has made due allowance therefore in this BID;

- (6) he understands that the quantities of work tabulated in this BID or indicated in the Contract Documents are only approximate and are subject to increase or decrease as deemed necessary by the Engineer;
- (7) he agrees that, if this BID is accepted he will contract with the Owner, as provided in the copy of the Contract Documents deposited in the office of the Engineer, this BID form being part of said Contract Documents, and that he will perform all the work and furnish all the materials and equipment, and provide all labor, services, plant, machinery, apparatus, appliances, tools, supplies and all other things required by the Contract Documents in the manner and within the time therein prescribed and according to the requirements of the Engineer as therein set forth, and that he will take in full payment therefore the lump sum or unit price applicable to each item of the Work as stated in the schedule below.

Note: Bidders must bid on each item. All entries in the entire BID must be made clearly and in ink. In case of discrepancy between prices in writing and in figures, the writing shall govern. In case of discrepancy between the product obtained by multiplying the estimated quantity by the unit price, and the extended amount, the product obtained shall govern. In case of discrepancy between total of extended amounts and total amount of bid stated, total of items shall govern. Use the pages in this document when submitting proposal and submit contract documents intact.

This BID includes Addenda number(s)	 (To be	filled	in by
Bidder if Addenda are issued.)			

BID

00301A -2

ITEM NO.	ITEM DESCRIPTION AND UNIT PRICE BID WRITTEN IN WORDS	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
201.32	Tree Purning, Large Trees, for the unit price per lump sum of: Dollars	LS	1		
	(words) and Cents.				
	Removing Stumps, for the unit price per each of:				
201.4	(words) and Cents.	EA	1		
202.41	Removal of Existing Pipe 0-24" Dia., for the unit price per linear foot of: Dollars	LF	25		
202.41	(words) and Cents.	LF	25		
202.4	Common Excavation, for the unit price per cubic yard of:	CV	1 100		
203.1	Dollars (words) and Cents.	CY	1,100		
	Rock Excavation, for the unit price per cubic yard of:				
203.2	(words) and Cents.	CY	25		
203.961	Re-grading and Cleaning Ditchlines 0-12", fo the unit price per square yard of: Dollars	SY	400		
	(words) and Cents.				
206.19	Common Structure Excavation Exploratory, for the unit price per cubic yard of: Dollars	CY	25		
200.10	(words) and Cents.				

ITEM NO.	ITEM DESCRIPTION AND UNIT PRICE BID WRITTEN IN WORDS	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
214	Fine Grading, for the unit price per unit of: Dollars (words) and Cents.	Unit	1		
304.323	Crushed Gravel for Shoulders, (30% Loam), for the unit price per cubic yard of: Dollars (words) and Cents.	CY	35		
304.35	Crushed Gravel for Drives, for the unit price per cubic yard of: Dollars (words) and Cents.	CY	35		
304.4	Crushed Stone Fine, for the unit price per cubic yard of: Dollars (words) and Cents.	CY	330		
304.5	Crushed Stone Coarse, for the unit price per cubic yard of: Dollars (words) and Cents.	CY	575		
403.11033	Hot Bituminous Pavement, Machine Method(3/4" Winter Binder), for the unit price per ton of: Dollars (words) and Cents.	TON	215		
403.12	Hot Bituminous Pavement, Hand Method, for the unit price per ton of: Dollars (words) and Cents.	TON	30		
572.1	Reconstruct Stone Wall, Multiple Stones, for the unit price per linear foot of: Dollars (words) and Cents.	LF	25		
603.80004	4" SDR 35 PVC Drain Pipe, for the unit price per linear foot of: Dollars (words) and Cents.	LF	25		

ITEM NO.	ITEM DESCRIPTION AND UNIT PRICE BID WRITTEN IN WORDS	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
603.80006	6" SDR 35 PVC Drain Pipe, for the unit price per linear foot of: Dollars (words) and Cents.	LF	25		
604.0007	Polyethylene Liner, for the unit price per each of: Dollars (words) and Cents.	EA	6		
604.4	Reconst./Adjust CB's & DI's, for the unit price per linear foot of: Dollars (words) and Cents.	LF	5		
604.5	Reconst./Adjust Manholes, for the unit price per linear foot of: Dollars (words) and Cents.	LF	5		
604.61	SMH Covers and Frames, for the unit price per each of: Dollars (words) and Cents.	EA	3		
604.62	DMH Covers and Frames, for the unit price per each of: Dollars (words) and Cents.	EA	3		
604.72	Grates and Frames, Type B, for the unit price per each of: Dollars (words) and Cents.	EA	6		
611.05406	6" C-900 Water Line, for the unit price per linear foot of: Dollars (words) and Cents.	LF	25		
611.05408	8" C-900 Water Line, for the unit price per linear foot of: Dollars (words) and Cents.	LF	700		

ITEM NO.	ITEM DESCRIPTION AND UNIT PRICE BID WRITTEN IN WORDS	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
611.50008	3/4" CTS Service Pipe, for the unit price per linear foot of: Dollars (words)	LF	450		
	and Cents.				
611.51007	3/4" Corporation Stop with Saddle, for the unit price per each of: Dollars (words) and Cents.	EA	9		
611.51008	2" Corporation Stop with Saddle, for the unit price per each of: Dollars (words) and Cents.	EA	1		
611.52007	3/4" Curb Stop with Box, for the unit price per each of: Dollars (words) and Cents.	EA	9		
611.52020	2" Curb Stop with Box, for the unit price per each of: Dollars (words) and Cents.	EA	1		
611.54020	2" HDPE Service Connection, for the unit price per linear foot of: Dollars (words) and Cents.	LF	55		
611.70006	6" Fitting, for the unit price per each of: Dollars (words) and Cents.	EA	2		
611.70008	8" Fitting, for the unit price per each of: Dollars (words) and Cents.	EA	7		
611.71006	6" WGV with Box, for the unit price per each of: Dollars (words) and Cents.	EA	1		

ITEM NO	ITEM DESCRIPTION AND UNIT PRICE BID WRITTEN IN WORDS	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
	8" WGV with Box, for the unit price per each				
	of:				
611.71008	Dollars	EA	2		
	(words)				
	and Cents.				
	10'x8" SS Tapping Sleeve, for the unit price				
	per each of:				
611.71110	Dollars	EA	1		
	(words)				
	and Cents.				
	2" Coupling, for the unit price per each of:				
611.73002	Dollars	EA	1		
	(words)				
	and Cents.				
	Chlorine Injection Tap, for the unit price per each of:				
611.77	Dollars	EA	1		
011.77	(words)				
	and Cents.				
	Hydrant, for the unit price per each of:				
	Dollars	l	,		
611.81	(words)	EA	1		
	and Cents.				
	Adjust WGV's/Shutoffs, for the unit price per				
	each of:				
611.90001	Dollars	EA	7		
	(words)				
	and Cents.				
	Temporary Water Service, for the unit price				
	per unit of:				
611.992	Dollars	Unit	1		
	(words)				
	and Cents.				
	Cut/Cap/Terminate 6" Water Main, for the unit				
611 000	price per lump sum of: Dollars	LS	1		
611.999	(words)	LS	I		
	and Cents.				
	Water Main Insulation, 2" Rigid Foam, for the				
	unit price per square yard of:				
611.9512	Dollars	SY	25		
	(words)				
	andCents.				

ITEM NO.	ITEM DESCRIPTION AND UNIT PRICE BID WRITTEN IN WORDS	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
615.032	Traffic Sign Type C with Breakaway Mounts, for the unit price per square foot of: Dollars (words) and Cents.	SF	25		
615.033	Removing Traffic Sign Type C , for the unit price per unit of: Dollars (words) and Cents.	Unit	4		
618.7	Flaggers, for the unit price per hour of: Dollars (words) and Cents.	HR	60		
619.1	Maintenance of Traffic, for the unit price per unit of: Dollars (words) and Cents.	Unit	1		
622.55	Remove and Reset Monuments, for the unit price per each of: Dollars (words) and Cents.	EA	1		
628.2	Sawed Bituminous Pavement, for the unit price per linear foot of: Dollars (words) and Cents.	LF	425		
645.512	Compost Sock, for the unit price per linear foot of: Dollars (words) and Cents.	LF	200		
645.53	Silt Fence, for the unit price per linear foot of: Dollars (words) and Cents.	LF	250		
645.533	Inlet Filter Baskets, for the unit price per each of: Dollars (words) and Cents.	EA	10		

ITEM NO.	ITEM DESCRIPTION AND UNIT PRICE BID WRITTEN IN WORDS	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
646.512	Turf Establishment with Mulch and Tackifiers and Loam, for the unit price per square yard of: Dollars (words)	SY	800		
	andCents.				
670.0662	R&R Mailbox, for the unit price per each of: Dollars (words) and Cents.	EA	4		
670.675	Replace Private Water Service Connections, for the unit price per each of: Dollars (words) and Cents.	EA	8		
692	Mobilization, for the unit price per unit of: Dollars (words) and Cents.	Unit	1		
902	4" PVC Drain Inserta-Tee, for the unit price per each of: Dollars (words) and Cents.	EA	1		
902.1	6" PVC Drain Inserta-Tee, for the unit price per each of: Dollars (words) and Cents.	EA	1		
912	R&R Landscaping, for the unit price per allowance of: Dollars (words) and Cents.	AL	1	5,000.00	5,000.00

BID FORM - UNIT PRICE SCHEDULE - BASE BID

ITEM NO.	ITEM DESCRIPTION AND UNIT PRICE BID WRITTEN IN WORDS	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
1008.11	Alterations and Additions - Unanticipated Work, for the allowance of: Dollars (words) and Cents.	AL	1	10,000.00	10,000.00
1010.15	Fuel Adjustment, for the allowance of: Dollars (words) and Cents.	AL	1	5,000.00	5,000.00
1010.2	Asphalt Cement Adjustment, for the allowance of:	AL	1	5,000.00	5,000.00

Total Amount of Base Bid, based on Unit Price Schedule:			
(Amount in Figures)			
(Amount in Words)			

All prices must be written in ink or type written. Unit prices shall be written in words as well as figures in the space provided in the bid form. In case of a discrepancy, the amount in words shall govern and the "Total Price" shall be calculated based on the stated quantity multiplied by the written unit price.

All prices shall include labor, material, equipment and Overhead and Profit for work in place in accordance with the Drawings, Specifications and Contract Documents.

BID FORM - UNIT PRICE SCHEDULE - BID ALT. #1

ITEM NO.	ITEM DESCRIPTION AND UNIT PRICE BID WRITTEN IN WORDS	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
304.323	Crushed Aggregate for shoulders (30% Loam), for the unit price cubic yard of: Dollars (words) and Cents.	CY	15		
403.11043	Hot Bituminous Pavement, Machine Method Wearing Course 1/2", for the unit price per ton of: Dollars (words) and Cents.	TON	130		
403.12	Hot Bituminous Pavement, Hand Method, for the unit price per ton of: Dollars (words) and Cents.	TON	10		
410.22	Asphalt Emulsion for Tack Coat, for the unit price per gallon of: Dollars (words) and Cents.	GAL	100		
417	Cold Planing Bituminous Surfaces, for the unit price per square yard of: Dollars (words) and Cents.	SY	90		
604.4	Reconst./Adj. CB's & DI's, for the unit price per linear foot of: Dollars (words) and Cents.	LF	2		
604.5	Reconst./Adj. Manholes, for the unit price per linear foot of: Dollars (words) and Cents.	LF	2		
611.90001	Adjusting WGV's/Shutoffs Set by Others, for the unit price per each of: Dollars (words) and Cents.	EA	7		

BID FORM - UNIT PRICE SCHEDULE - BID ALT. #1

ITEM NO.	ITEM DESCRIPTION AND UNIT PRICE BID WRITTEN IN WORDS	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL PRICE
619.1	Maintenance of Traffic, for the unit price per Unit of: Dollars (words)	U	1		
	and Cents.				
1010.2	Asphalt Cement Adjustment, for the allowance of: Dollars (words) and Cents.	AL	1	5,000.00	5,000.00

Total Amount of Bid Alt. #1, based on Unit Price Schedule:			
(Amount in Figures)			
(Amount in Words)			

All prices must be written in ink or type written. Unit prices shall be written in words as well as figures in the space provided in the bid form. In case of a discrepancy, the amount in words shall govern and the "Total Price" shall be calculated based on the stated quantity multiplied by the written unit price.

All prices shall include labor, material, equipment and Overhead and Profit for work in place in accordance with the Drawings, Specifications and Contract Documents.

The undersigned agrees that extra work, if any, performed in accordance with the Article 10 of the General Conditions of the Contract will be paid for in accordance with Article 11 of the General Conditions of the Contract.

If this BID is accepted by the Owner, the undersigned agrees to complete the entire work provided to be done under the Contract within the time stipulated in the AGREEMENT.

As provided in the INSTRUCTIONS TO BIDDERS, the bidder hereby agrees that he will not withdraw this BID for a period of 60 days after the actual date of the opening of the Bid and that, if the Owner shall accept this BID, the bidder will duly execute and acknowledge the AGREEMENT and furnish, duly executed and acknowledged, the required CONTRACT BONDS within ten (10) days after notification that the AGREEMENT and other Contract Documents are ready for signature.

Should the bidder fail to fulfill any of his agreements as hereinabove set forth, the Owner shall have the right to retain as liquidated damages the amount of the bid security which shall become the Owner's property. If a bid bond was given, it is agreed that the amount thereof shall be paid as liquidated damages to the Owner by the Surety.

The bidder, by submittal of this BID, agrees with the Owner that the amount of the bid security deposited with this BID fairly and reasonably represents the amount of damages the Owner will suffer due to the failure of the bidder to fulfill his agreements as above provided.

The undersigned further certifies under penalties of perjury that this bid is in all respects bona fide, fair and made without collusion or fraud with any other person. As used in this paragraph the word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity. The attached CERTIFICATE OF NON-COLLUSION must be signed and submitted as part of the Bid Proposal.

(SEAL)	By
(Name of Bidder)	(Signature and title of authorized
	representative)
(Telephone)	(Business address)
	BID
	00301A -22

(Fax Number)	(City and State)		
	Date		
The bidder is a corporation incorporated in the State (or Commonwealth) of a partnership - an individual. (Bidder must add and delete as necessary to make this sentence read correctly.)			
Note: If the bidder is a corporation, affix corporate seal and give below the names of its president, treasurer, and general manager if any; if a partnership, give full names and residential addresses of all partners; and if an individual, give residential address if different from business address.			

BID

00301A -23

CERTIFICATE OF NON-COLLUSION

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

(Name of person signing bid or proposal)	
(Name of business)	

END OF SECTION 00301A

BID

00301A -24

BID BOND

BIDDER (Na	ime and Address):		
SURETY (Na	ame and Address of Principal Pla	ace of Business):	
OWNER (Na	nme and Address):		
BID BID DUE D PROJECT (ATE:(Brief Description Including Loca	ation):	
DATE (Not PENAL SUI IN WITNESS printed on the	later than Bid due date): M:(Wo S WHEREOF, Surety and Bidder	ords) r, intending to be lega	(Figures) ally bound hereby, subject to the terms to be duly executed on its behalf by its
BIDDER		SURETY	<i>(</i>
Bidder's Nan By:	Sea ne and Corporate Seal		(Seal) Surety's Name and Corporate Seal
	Signature and Title		Signature and Title (Attach Power of Attorney)
Attest:	Signature and Title	Attest: _	Signature and Title
Note: (1) (2)	Above addresses are to be under the Any singular reference to Bioplural where applicable.		ed notice. R or other party shall be considered

- 1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to pay to OWNER upon default of Bidder the penal sum set forth on the face of this Bond.
- 2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by OWNER) the executed Agreement required by the Bidding Documents and any performance and payment Bonds required by the Bidding Documents.
- 3. This obligation shall be null and void if:
- 3.1. OWNER accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by OWNER) the executed Agreement required by the Bidding Documents and any performance and payment Bonds required by the Bidding Documents, or
 - 3.2. All Bids are rejected by OWNER, or
- 3.3. OWNER fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by paragraph 5 hereof).
- 4. Payment under this Bond will be due and payable upon default by Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from OWNER, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
- 5. Surety waives notice of and any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by OWNER and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.
- 6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.
- 7. Any suit or action under this Bond shall be commenced only in a court of competent

- jurisdiction located in the state in which the Project is located.
- 8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
- 9. Surety shall cause to be attached to this Bond a current and effective Power or Attorney evidencing the authority of the officer, agent or representative who executed this Bond on behalf of Surety to execute, seal and deliver such Bond and bind the Surety thereby.
- 10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
- 11. The term "Bid" as used herein includes a Bid, offer or proposal as applicable.

Town of Wolfeboro, New Hampshire

9 Union Street, Wolfeboro, New Hampshire 03894 Tel: (603) 569-8176 Fax: (603) 396-6403

GREEN STREET Roadway Reconstruction Project

AGREEMENT

SECTION 00500B

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AGREEMENT

SECTION 00500B

TOWN OF WOLFEBORO, NEW HAMPSHIRE

THIS AGREEMENT is dated as of the _	day of	in the yea	ır by	and
between the Town of Wolfeboro, New H	lampshire acting	by and thro	ough its Boar	rd of
Selectman duly authorized therefore,	who acts herein	solely for	said Town	and
without personal liability to itse	elf, (hereinafter	called	OWNER)	and
(hereinafter called CONTR	ACTOR).			
OWNER AND CONTRACTOR, in consi	ideration of the m	ıutual cover	nants herein:	after

set forth, agrees as follows:

ARTICLE 1. WORK

CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is as described in SECTION 01010, PROSECUTION OF WORK.

The Project for which the Work under the Contract Documents may be the whole or only a part is generally as described as follows: <u>Green Street</u>, <u>Roadway Reconstruction Project includes Base Bid and Bid Alternate #1. At any time during the execution of the Project, the Owner has the right to add into the Contract any or all of the Bid Alternates; following the requirements in the Standard General Conditions of the Construction Contract by EJCDC and this AGREEMENT.</u>

ARTICLE 2. ENGINEER

The Project has been designed by the Town of Wolfeboro, New Hampshire in association with Engineer. The Town of Wolfeboro Department of Public Works is the ENGINEER, and shall act as OWNER'S representative, and have the rights and authority assigned to ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

ARTICLE 3. CONTRACT TIMES

- 3.1 The Contractor must provide a two (2) week minimum written notice of intended start date of equipment mobilization. The work, (including selected Add Alternatives) shall be completed in its entirety prior to October 31, 2023. The Contractor shall complete the work within a 12 week timeframe.
- 3.2 Liquidated Damages. OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the

AGREEMENT 00500B -2

Work is not completed within the times specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with Article 12 of the General They also recognize the delays, expense, and difficulties involved in proving the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER One Thousand Dollars (\$1,000,00) for each calendar day that expires after the time specified in paragraph 3.1 for Substantial Completion until the Work is substantially complete. After Substantial Completion, if CONTRACTOR shall neglect, refuse, or fail to complete the remaining Work within the time specified in paragraph 3.1 for completion and readiness for final payment or any proper extension thereof granted by OWNER. CONTRACTOR shall pay OWNER Four Hundred Dollars (\$400.00) for each calendar day that expires after the time specified in paragraph 3.1 for completion and readiness for final payment.

ARTICLE 4. CONTRACT PRICE

OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents; an amount in current funds equal to the unit prices stipulated in the CONTRACTOR's BID.

ARTICLE 5. PAYMENT PROCEDURES

CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by OWNER as provided in the General Conditions.

- Progress Payments; Retainage. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment as recommended by ENGINEER, on or about the <u>25th</u> day of each month during construction as provided in paragraphs 5.1.1, 5.1.2 and 5.2 below. All such payments will be measured by the schedule of values established in paragraph 2.07 of the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no schedule of values, as provided in the General Requirements.
 - 5.1.1 Prior to Substantial Completion, progress payments will be made in an amount equal to 100 percent of Work which has been completed in a satisfactory manner, but in each case, less the aggregate of payments previously made and less such amounts as ENGINEER shall determine, or OWNER may withhold, in accordance with paragraph 14.02.B.5 of the General Conditions.

- 5.1.2 Upon Substantial Completion, progress payments will be in an amount sufficient to increase total payments to CONTRACTOR, less such amounts as ENGINEER shall determine, or OWNER may withhold in accordance with paragraph 14.02.B.5 of the GENERAL CONDITIONS.
- 5.2 Final Payment. Upon final completion and acceptance of the Work in accordance with paragraph 14.07 of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said paragraph 14.07.

ARTICLE 6. INTEREST (NOT USED)

ARTICLE 7. CONTRACTOR'S REPRESENTATIONS

In order to induce OWNER to enter into this Agreement, CONTRACTOR makes the following representations:

- 7.1 CONTRACTOR has examined and carefully studied the Contract Documents (including the Addenda listed in paragraph 8) and the other related data identified in the Bidding Documents including "technical data."
- 7.2 CONTRACTOR has visited the site and become familiar with and is satisfied as to the general, local, and site conditions that may affect cost, progress, performance, or furnishing of the Work.
- 7.3 CONTRACTOR is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, performance, and furnishing of the Work.
- 7.4 CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the site that relates to the Work as indicated in the Contract Documents.
- 7.5 CONTRACTOR has correlated the information known to CONTRACTOR, information and observations obtained from visits to the site, reports, and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
- 7.6 CONTRACTOR has given OWNER written notice of all conflicts, errors, ambiguities, or discrepancies that CONTRACTOR has discovered in the Contract Documents and the written resolution thereof by OWNER is acceptable to CONTRACTOR, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

ARTICLE 8. CONTRACT DOCUMENTS

The Contract Documents which comprise the entire agreement between OWNER and CONTRACTOR concerning the Work consist of the following:

- 8.1 Invitation to Bid.
- 8.2 Instructions to Bidders.
- 8.3 CONTRACTOR's Bid.
- 8.4 Statement of Bidders Qualifications
- 8.5 This Agreement.
- 8.6 Exhibits to this Agreement
- 8.7 Performance, Payment, and other Bonds.
- 8.8 General Conditions EJCDC Document, 2002 edition.
- 8.9 Supplementary Conditions.
- 8.10 Division 0 Bidding and Contract Requirements, Division 1 General Requirements, Division 2 Technical Specifications for Site Work and Special Attentions, as listed in Table of Contents thereof.
- 8.11 Drawings and Details in Appendices of Specifications, as follows:
 - Appendix A "Green Street Roadway Reconstruction Project" prepared by Stantec Consulting Services Inc., dated March 2023, consisting of 10 drawings (under separate cover) and applicable NHDOT Standard Drawings.
- 8.12 Addenda numbers to , inclusive.
- 8.13 The following which may be delivered or issued after the Effective Date of the Agreement and are not attached hereto: All Written Amendments and other documents amending, modifying, or supplementing the Contract Documents pursuant to paragraph 3.04 of the General Conditions.

ARTICLE 9. MISCELLANEOUS

9.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions will have the meanings indicated in the General Conditions.

- 9.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically, but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment with release or discharge the assignor from any duty or responsibility under the Contract Documents.
- 9.3 OWNER and CONTRACTOR each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.
- 9.4 Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.
- 9.5 The OWNER reserves the right to reject any SUBCONTRACTOR or SUPPLIER employed or used by the CONTRACTOR if the Owner deems the person, firm, supplier, or other party unacceptable.

IN WITNESS WHEREOF, OWNER AND CONTRACTOR have signed this Agreement in triplicate. Counterparts have been delivered to OWNER(2) and CONTRACTOR(1). All portions of the Contract Documents have been signed, initialed or identified by OWNER and CONTRACTOR or identified by ENGINEER on their behalf.

This Agree the Agreen	ment will be effective on nent).	(which is the Effective Date of
OWNER:	Town of Wolfeboro, New Hampshire	CONTRACTOR:
Name: By:		Name: By:
Т	own Manager	[CORPORATE SEAL]

AGREEMENT 00500B -6

Attest:	Attest:
Address: 9 Union Street Wolfeboro, NH 03894	Address:
	License No.
	Agent for service of process:
	(If CONTRACTOR is a corporation, attach Evidence of authority to sign.)

Engineers Joint Documents Committee Design and Construction Related Documents Instructions and License Agreement

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Before you use any EJCDC document:

- Read the License Agreement. You agree to it and are bound by its terms when you use the EJCDC document.
- 2. Make sure that you have the correct version for your word processing software.

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- 1. While EJCDC has expended considerable effort to make the software translations exact, it can be that a few document controls (e.g., bold, underline) did not carry over.
- 2. Similarly, your software may change the font specification if the font is not available in your system. It will choose a font that is close in appearance. In this event, the pagination may not match the control set.
- If you modify the document, you must follow the instructions in the License Agreement about notification.
- 4. Also note the instruction in the License Agreement about the EJCDC copyright.

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You should carefully read the following terms and conditions before using this document.

Commencement of use of this document indicates your acceptance of these terms and conditions. If you do not agree to them, you should promptly return the materials to the vendor, and your money will be refunded.

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You have a limited nonexclusive license to:

- Use EJCDC Design and Construction Related Documents on any number of machines owned, leased or rented by your company or organization.
- Use EJCDC Design and Construction Related Documents in printed form for bona fide contract documents.
- Copy EJCDC Design and Construction Related Documents into any machine readable or printed form for backup or modification purposes in support of your use of EJCDC Design and Construction Related Documents.

You agree that you will:

- Reproduce and include EJCDC's copyright notice on any printed or machine-readable copy, modification, or portion merged into another document or program. All proprietary rights in EJCDC Design and Construction Related Documents are and shall remain the property of EJCDC.
- Not represent that any of the contract documents you generate from EJCDC Design and Construction
 Related Documents are EJCDC documents unless
 (i) the document text is used without alteration or
 (ii) all additions and changes to, and deletions from, the text are clearly shown.

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If you transfer possession of any copy, modification or merged portion of EJCDC Design and Construction Related Documents to another party, your license is automatically terminated.

Term:

The license is effective until terminated. You may terminate it at any time by destroying EJCDC Design and Construction Related Documents altogether with all copies, modifications and merged portions in any form. It will also terminate upon conditions set forth elsewhere in this Agreement or if you fail to comply with any term or condition of this Agreement. You agree upon such termination to destroy EJCDC Design and Construction Related Documents along with all copies, modifications and merged portions in any form.

Limited Warranty:

EJCDC warrants the CDs and diskettes on which EJCDC Design and Construction Related Documents is furnished to be free from defects in materials and workmanship under normal use for a period of ninety (90) days from the date of delivery to you as evidenced by a copy of your receipt.

There is no other warranty of any kind, either expressed or implied, including, but not limited to the implied warranties of merchantability and fitness for a particular purpose. Some states do not allow the exclusion of implied warranties, so the above exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

EJCDC does not warrant that the functions contained in EJCDC Design and Construction Related Documents will meet your requirements or that the operation of EJCDC Design and Construction Related Documents will be uninterrupted or error free.

Limitations of Remedies:

EJCDC's entire liability and your exclusive remedy shall be:

- 1. the replacement of any document not meeting EJCDC's "Limited Warranty" which is returned to EJCDC's selling agent with a copy of your receipt, or
- 2. if EJCDC's selling agent is unable to deliver a replacement CD or diskette which is free of defects in materials and workmanship, you may terminate this Agreement by returning EJCDC Document and your money will be refunded.

In no event will EJCDC be liable to you for any damages, including any lost profits, lost savings or other incidental or consequential damages arising out of the use or inability to use **EJCDC Design and Construction Related Documents** even if EJCDC has been advised of the possibility of such damages, or for any claim by any other party.

Some states do not allow the limitation or exclusion of liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you.

General:

You may not sublicense, assign, or transfer this license except as expressly provided in this Agreement. Any attempt otherwise to sublicense, assign, or transfer any of the rights, duties, or obligations hereunder is void.

This Agreement shall be governed by the laws of the State of Virginia. Should you have any questions concerning this Agreement, you may contact EJCDC by writing to:

Arthur Schwartz, Esq. General Counsel National Society of Professional Engineers 1420 King Street Alexandria, VA 22314

Phone: (703) 684-2845 Fax: (703) 836-4875 e-mail: aschwartz@nspe.org

You acknowledge that you have read this agreement, understand it and agree to be bound by its terms and conditions. You further agree that it is the complete and exclusive statement of the agreement between us which supersedes any proposal or prior agreement, oral or written, and any other communications between us relating to the subject matter of this agreement.

Notice of Award

			Date:
Project: G	reen Street, Roadway I	Reconstruction Project	
Owner: To	own of Wolfeboro		Owner's Contract No.:
Contract:			Engineer's Project No.:179450615
Bidder:			
Bidder's			
You are th	re notified that your Base Successful Bidder an	id dated nd are awarded a Contract for	for the above Contract has been considered. the work identified below:
The work	shall be as indicated in	the Base Bid, Bid Alternate	# and Bid Alternate #
The Co		Contract is	which price includes the
Two (2			ept Drawings) accompany this Notice of Award.
<u>Two (2</u>	2) sets of the Drawings	will be delivered separately	or otherwise made available to you immediately.
You n Notice of A		following conditions preced	ent within [15] days of the date you receive this
1.	Deliver to the Owner	Three (3) copies of fully exe	ecuted counterparts of the Contract Documents.
2.	Deliver with the executed Contract Documents the Contract security [Bonds] as specified in the Instructions to Bidders (Article 20), General Conditions (Paragraph 5.01), and Supplementary Conditions (Paragraph SC-5.01).		
3.	Other conditions pre-	cedent:	
		e conditions within the time ard, and declare your Bid secu	e specified will entitle Owner to consider you in arity forfeited.
	n ten days after you co rt of the Contract Docu		ions, Owner will return to you one fully executed
		Owner By:	
		Authorized Signature	_
Copy to Er	ngineer	Title	

NOTICE TO PROCEED

	Dated
To:	
<u> </u>	
Project:	
Contract: Green Street, Roadway Reconstruction	Project
Wolfeboro, New Hampshire	
OWNER'S CONTRACT NO	
You are noticed that the Contract Times commence to run on By performing your obligations under the Contract D Article 3 of the Agreement, the date of Substantial the date of readiness for final payment is	that date, you are to start ocuments. In accordance with Completion is, and
Before you may start Work at the Site you must, p Conditions provides that you and Owner must e copies to the Engineer and other identified add insurance which each is required to purchase ar the Contract Documents	each deliver to the other (with litional insureds) certificates of
Also, before you may start Work at the Site	you must
Attend a Pre-Construction meeting on a date to be	e determined.
By:	
	(OWNER)
	(AUTHORIZED SIGNATURE)
copy to ENGINEER	(TITLE)

copy to ENGINEER

__<u>Town of Wolfeboro, Department of Public Works</u> 1. (Use Certified Mail, Return Receipt Requested)

Construction Performance Bond

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

CONTRACTOR (Name and Address):	SURETY (Name and Add of Business):	ress of Principal Place
OWNER (Name and Address):			
CONTRACT Date: Amount: Description (Name and Location):			
BOND Date (Not earlier than Contract Date Amount: Modifications to this Bond Form:	>) :		
Surety and Contractor, intending to be each cause this Performance Bond to			
CONTRACTOR AS PRINCIPAL Company: (Cor	p. Seal)	SURETY Company:	(Corp. Seal)
Signature: Name and Title:		Signature: Name and Title: (Attach Power of Attorne	
(Space is provided below for signature	es of additional pa	rties, if required.)	
CONTRACTOR AS PRINCIPAL Company: (Cor	rp. Seal)	SURETY Company:	(Corp. Seal)
Signature: Name and Title:		Signature: Name and Title:	
EJCDC No. 1910-28-A (1996 Edition Originally prepared through the joint efforts of General Contractors of America, and the Ame	the Surety Association of		nents Committee, the Associated

- 1. The CONTRACTOR and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Contract, which is incorporated herein by reference.
- 2. If the CONTRACTOR performs the Contract, the Surety and the CONTRACTOR have no obligation under this Bond, except to participate in conferences as provided in paragraph 3.1.
- 3. If there is no OWNER Default, the Surety's obligation under this Bond shall arise after:
- 3.1. The OWNER has notified the CONTRACTOR and the Surety at the addresses described in paragraph 10 below, that the OWNER is considering declaring a CONTRACTOR Default and has requested and attempted to arrange a conference with the CONTRACTOR and the Surety to be held not later than fifteen days after receipt of such notice to discuss methods of performing the Contract. If the OWNER, the CONTRACTOR and the Surety agree, the CONTRACTOR shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive the OWNER'S right, if any, subsequently to declare a CONTRACTOR Default; and
- 3.2. The OWNER has declared a CONTRACTOR Default and formally terminated the CONTRACTOR'S right to complete the Contract. Such CONTRACTOR Default shall not be declared earlier than twenty days after the CONTRACTOR and the Surety have received notice as provided in paragraph 3.1; and
 - 3.3. The OWNER has agreed to pay the Balance of the Contract Price to:
 - 3.3.1. The Surety in accordance with the terms of the Contract;
- $3.3.2 \ \mathrm{Another}$ contractor selected pursuant to paragraph 4.3 to perform the Contract.
- 4. When the OWNER has satisfied the conditions of paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:
- 4.1. Arrange for the CONTRACTOR, with consent of the OWNER, to perform and complete the Contract; or
- 4.2. Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
- 4.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the OWNER for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by the OWNER and the contractor selected with the OWNER'S concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the Bonds issued on the Contract, and pay to the OWNER the amount of damages as described in paragraph 6 in excess of the Balance of the Contract Price incurred by the OWNER resulting from the CONTRACTOR Default; or
- 4.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances;
- 4.4.1 After investigation, determine the amount for which it may be liable to the OWNER and, as soon as practicable after the amount is determined, tender payment therefore to the OWNER; or
- $4.4.2\,$ Deny liability in whole or in part and notify the OWNER citing reasons therefore.
- 5. If the Surety does not proceed as provided in paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen days after receipt of an additional written notice from the OWNER to the Surety demanding that the Surety perform its obligations under this Bond, and the OWNER shall be entitled to enforce any remedy available to the OWNER. If the Surety proceeds as provided in paragraph 4.4, and the OWNER refuses the payment tendered or the Surety has denied

- pliability, in whole or in part, without further notice the OWNER shall be entitled to enforce any remedy available to the OWNER.
- 6. After the OWNER has terminated the CONTRACTOR'S right to complete the Contract, and if the Surety elects to act under paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the OWNER shall not be greater than those of the CONTRACTOR under the Contract, and the responsibilities of the OWNER to the Surety shall not be greater than those of the OWNER under the Contract. To a limit of the amount of this Bond, but subject to commitment by the OWNER of the Balance of the Contract Price to mitigation of costs and damages on the Contract, the Surety is obligated without duplication for:
- 6.1. The responsibilities of the CONTRACTOR for correction of defective Work and completion of the Contract;
- 6.2. Additional legal, design professional and delay costs resulting from the CONTRACTOR'S Default, and resulting from the actions or failure to act of the Surety under paragraph 4; and
- 6.3. Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of the CONTRACTOR.
- 7. The Surety shall not be liable to the OWNER or others for obligations of the CONTRACTOR that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the OWNER or its heirs, executors, administrators, or successors.
- 8. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders and other obligations.
- 9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and shall be instituted within two years after CONTRACTOR Default or within two years after the CONTRACTOR ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
- 10. Notice to the Surety, the OWNER or the CONTRACTOR shall be mailed or delivered to the address shown on the signature page.
- 11. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the Contract was be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted here from and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
- 12. Definitions.
- 12.1 Balance of the Contract Price: The total amount payable by the OWNER to the CONTRACTOR under the Contract after all proper adjustments have been made, including allowance to the CONTRACTOR of any amounts received or to be received by the OWNER in settlement of insurance or other Claims for damages to which the CONTRACTOR is entitled, reduced by all valid and proper payments made to or on behalf of the CONTRACTOR under the Contract.
- 12.2. Contract: The agreement between the OWNER and the CONTRACTOR identified on the signature page, including all Contract Documents and changes thereto.
- 12.3. CONTRACTOR Default: Failure of the CONTRACTOR, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.
- 12.4. OWNER Default: Failure of the OWNER, which has neither been remedied nor waived, to pay the CONTRACTOR as required by the Contract or to perform and complete or comply with the other terms thereof

Construction Payment Bond

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

CONTRACTOR (Name and Address	s):	SURETY (Name and Address of F of Business):	rincipal Place
OWNER (Name and Address):			
CONTRACT Date: Amount: Description (Name and Location):			
BOND Date (Not earlier than Contract Date Amount: Modifications to this Bond Form:	e):		
		y, subject to the terms printed on the revo behalf by its authorized officer, agent, or a SURETY Company:	
Signature:		Signature:	, ,
Name and Title:		Name and Title: (Attach Power of Attorney)	
(Space is provided below for signatu	res of additional partie	s, if required.)	
CONTRACTOR AS PRINCIPAL Company:	(Corp. Seal)	SURETY Company:	(Corp. Seal)
Signature:		Signature:	
Name and Title:		Name and Title:	
EJCDC No. 1910-28-B (1996 Edition		gineers Joint Contract Documents Committee, the Associ	ated General Contractors of

Originally prepared through the joint efforts of the Surety Association of America, Engineers Joint Contract Documents Committee, the Associated General Contractors of America, the American Institute of Architects, the American Subcontractors Association, and the Associated Specialty Contractors.

- 1. The CONTRACTOR and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the OWNER to pay for labor, materials and equipment furnished for use in the performance of the Contract, which is incorporated herein by reference.
- 2. With respect to the OWNER, this obligation shall be null and void if the CONTRACTOR:
 - 2.1. Promptly makes payment, directly or indirectly, for all sums due Claimants, and
- 2.2. Defends, indemnifies and holds harmless the OWNER from all claims, demands, liens or suits by any person or entity who furnished labor, materials or equipment for use in the performance of the Contract, provided the OWNER has promptly notified the CONTRACTOR and the Surety (at the addresses described in paragraph 12) of any claims, demands, liens or suits and tendered defense of such claims, demands, liens or suits to the CONTRACTOR and the Surety, and provided there is no OWNER Default.
- 3. With respect to Claimants, this obligation shall be null and void if the CONTRACTOR promptly makes payment, directly or indirectly, for all sums due.
- 4. The Surety shall have no obligation to Claimants under this Bond until:
- 4.1. Claimants who are employed by or have a direct contract with the CONTRACTOR have given notice to the Surety (at the addresses described in paragraph 12) and sent a copy, or notice thereof, to the OWNER, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
 - 4.2. Claimants who do not have a direct contract with the CONTRACTOR:
- 1. Have furnished written notice to the CONTRACTOR and sent a copy, or notice thereof, to the OWNER, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials were furnished or supplied or for whom the labor was done or performed; and
- 2. Have either received a rejection in whole or in part from the CONTRACTOR, or not received within 30 days of furnishing the above notice any communication from the CONTRACTOR by which the CONTRACTOR had indicated the claim will be paid directly or indirectly; and
- 3. Not having been paid within the above 30 days, have sent a written notice to the Surety and sent a copy, or notice thereof, to the OWNER, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the CONTRACTOR.
- 5. If a notice required by paragraph 4 is given by the OWNER to the CONTRACTOR or to the Surety, that is sufficient compliance.
- 6. When the Claimant has satisfied the conditions of paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:
- 6.1. Send an answer to the Claimant, with a copy to the OWNER, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.
 - 6.2. Pay or arrange for payment of any undisputed amounts.
- 7. The Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
- 8. Amounts owed by the OWNER to the CONTRACTOR under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any Performance Bond. By the CONTRACTOR furnishing and the OWNER accepting this Bond, they agree that all funds earned by the CONTRACTOR in the performance of the Contract are dedicated to satisfy obligations of the CONTRACTOR and the Surety under this Bond, subject to the OWNER'S priority to use the funds for the completion of the Work.
- 9. The Surety shall not be liable to the OWNER, Claimants or others for obligations of the CONTRACTOR that are unrelated to the Contract. The OWNER shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.
- 10. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related Subcontracts, purchase orders and other obligations.
- 11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by paragraph 4.1 or paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
- 12. Notice to the Surety, the OWNER or the CONTRACTOR shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, the OWNER or the CONTRACTOR, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.
- 13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted here from and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is, that this Bond shall be construed as a statutory Bond and not as a common law bond.
- 14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, the CONTRACTOR shall promptly furnish a copy of this Bond or shall permit a copy to be made.

15. DEFINITIONS

15.1. Claimant: An individual or entity having a direct contract with the CONTRACTOR or with a Subcontractor of the CONTRACTOR to furnish labor, materials or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of

water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of the CONTRACTOR and the CONTRACTOR'S Subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

15.2. Contract: The agreement between the OWNER and the CONTRACTOR identified on the signature page, including all Contract Documents and changes thereto.

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

Date of Warranty Bond Execution:	
Name of Principal Contractor:	
Name of Surety:	
Name of Contracting Body: <u>Town of Wolfeboro, New Hampshire</u>	
Amount of Bond: Fifty Thousand Dollars (\$50,000.00)	
Contract ID No.:	

KNOW ALL MEN BY THESE PRESENTS, That we, the PRINCIPAL CONTRACTOR (hereafter, PRINCIPAL) and SURETY above named, are held and firmly bound unto the above named Contracting Body, hereinafter called the Contracting Body, in the penal sum of <u>Fifty Thousand Dollars (\$50,000.00)</u> by the Principal for the project stated above, 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.

WHEREAS, the said Principal entered into a certain contract, numbered as shown above, with the Contracting Body.

WHEREAS, the said Principal, through furnishing this bond from a Surety licensed to do business in the State of New Hampshire, is required to guarantee each element of the Project as specified and installed under said contract, against defects in material or workmanships which may develop during the Project Warranty Term (subject to any extensions thereof) in accordance with the Contract, and beginning on the date(s) identified in the contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if said Principal shall faithfully carry out and perform the said guarantee requirements of the Contract and shall, on due notice, repair and make good at its own expense any and all defects in material or workmanship in the said work which may develop during the Project Warranty Term, as may be extended, or shall pay over, make good and reimburse to the said Contracting Body all loss and damage which said Contracting Body may sustain by reason of failure or default of said Principal so to do, then this bond shall be null and void; otherwise it shall remain in full force and effect.

PROVIDED HOWEVER, that in the event of any default on the part of the said Principal, no claim, suit or action by reason of any default of Principal shall be brought hereunder until the Contracting Body shall deliver to the Surety within ten (10) days of the date as determined below, by registered mail, a written statement of the particular facts showing that the Principal has knowledge of such default and Principal's failure to carry out and perform the said guarantee requirements or to pay over, make good or reimburse Contracting Body for loss and damage extends beyond the expiration of thirty (30) days from the end of the Project Warranty Term as determined by Contracting Body in accordance with the Contract.

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

WARRANTY BOND 00621-1

Affix Seal of Surety Company	
, , , , , , , , , , , , , , , , , , ,	Print or type Surety Company Name
Ву	
	Print, stamp or type name of Attorney-in-Fact
	Signature of Attorney-in-Fact
Signature of Witness	
Oignature of Withess	
Print or type witness' name	
	Address of Attorney-in-Fact

WARRANTY BOND 00621-2

CORPORATION

SIGNATURE OF CONTRACTOR (Principal)

	Print or type ful	I name of Corporation
	Address	of Corporation
	Ву	Authorized Signature
		Print or type signers name
		Print or type signers Title
Attest		
	Authorized Signature	
	Print or type signers name	
	Print or type signers Title	

Affix Corporate Seal

WARRANTY BOND 00621-3

Attach certified copy of Power of Attorney to this sheet.

WARRANTY BOND 00621-4

CERTIFICATE OF SUBSTANTIAL COMPLETION

Date:							
Project:	<u>Green</u> Hampshi	Street,	Roadway	Reconstruction	Project,	Wolfeboro,	New
Agent:	Stantec 0	Consulting S	Services, Inc.				
Contractor:			····				
				lies to all Work und or to the following sp			for the
CONTRAC	TOR and		R, and that We	een inspected by au ork is hereby decla			
Date of Sul	ostantial Co	ompletion:					
the failure t	o include a		does not alter t	ected is attached her the responsibility of C			
The items i date of Sub			ll be completed	d or corrected by Cor	ntractor withir	n days of the	∍ above
	nor is it			otance of Work no obligation to comple			
Executed b	y Engineei	r (acting on	behalf of the To	own of Wolfeboro, NI	H) on:		
	By:						
	Ť	own of Wol	feboro, NH:		Date		
	_	Notary Pu	ıblic:		Date		
Contractor	accepts thi	is Certificate	e of Substantial	Completion on			
	Ву: _	011			D.1		
		Contracto	f:		Date		
	_	Notary Pu	ıblic:		Date		

CERTIFICATE OF SUBSTANTIAL COMPLETION 00630-1

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

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

Issued and Published Jointly By







PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE a practice division of the NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

AMERICAN COUNCIL OF ENGINEERING COMPANIES

AMERICAN SOCIETY OF CIVIL ENGINEERS

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The Associated General Contractors of America



Construction Specifications Institute

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American Council of Engineering Companies 1015 15th Street, N.W., Washington, DC 20005

American Society of Civil Engineers 1801 Alexander Bell Drive, Reston, VA 20191-4400

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

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GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

1.01 Defined Terms

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
- 1. Addenda--Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
- 2. *Agreement*--The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
- 3. Application for Payment--The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
- 4. Asbestos--Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
- 5. *Bid--*The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
- 6. *Bidder*--The individual or entity who submits a Bid directly to Owner.
- 7. Bidding Documents--The Bidding Requirements and the proposed Contract Documents (including all Addenda).
- 8. Bidding Requirements--The Advertisement or Invitation to Bid, Instructions to Bidders, bid security of acceptable form, if any, and the Bid Form with any supplements.

- 9. Change Order--A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
- 10. Claim--A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
- 11. Contract--The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.
- 12. Contract Documents-- Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor's submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
- 13. Contract Price--The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
- 14. Contract Times--The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any, (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
- 15. *Contractor*--The individual or entity with whom Owner has entered into the Agreement.
- 16. Cost of the Work--See Paragraph 11.01.A for definition.
- 17. *Drawings*--That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
- 18. Effective Date of the Agreement--The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
- 19. *Engineer*--The individual or entity named as such in the Agreement.

- 20. *Field Order*--A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
- 21. *General Requirements*—Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.
- 22. Hazardous Environmental Condition--The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.
- 23. *Hazardous Waste*--The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
- 24. Laws and Regulations; Laws or Regulations-Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
- 25. *Liens*--Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
- 26. *Milestone--*A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.
- 27. Notice of Award--The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
- 28. *Notice to Proceed*--A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
- 29. *Owner*--The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
 - 30. *PCBs*--Polychlorinated biphenyls.
- 31. Petroleum--Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.

- 32. *Progress Schedule*--A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
- 33. *Project*--The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
- 34. *Project Manual*--The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
- 35. Radioactive Material--Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
- 36. *Related Entity* -- An officer, director, partner, employee, agent, consultant, or subcontractor.
- 37. Resident Project Representative--The authorized representative of Engineer who may be assigned to the Site or any part thereof.
- 38. Samples-Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
- 39. Schedule of Submittals--A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
- 40. Schedule of Values--A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.
- 41. Shop Drawings--All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
- 42. *Site--*Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
- 43. Specifications--That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain

administrative requirements and procedural matters applicable thereto.

- 44. Subcontractor--An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
- 45. Substantial Completion--The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.
- 46. Successful Bidder--The Bidder submitting a responsive Bid to whom Owner makes an award.
- 47. Supplementary Conditions--That part of the Contract Documents which amends or supplements these General Conditions.
- 48. Supplier--A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or any Subcontractor.
- 49. Underground Facilities--All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
- 50. *Unit Price Work*--Work to be paid for on the basis of unit prices.
- 51. Work--The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
- 52. Work Change Directive--A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times

but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 Terminology

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

B. Intent of Certain Terms or Adjectives

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

C. Day

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

D. Defective

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

E. Furnish, Install, Perform, Provide

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

ARTICLE 2 - PRELIMINARY MATTERS

2.01 Delivery of Bonds and Evidence of Insurance

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

2.02 Copies of Documents

- A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.
- 2.03 Commencement of Contract Times; Notice to Proceed
- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement

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

2.04 Starting the Work

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

2.05 Before Starting Construction

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

2.06 Preconstruction Conference

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

2.07 Initial Acceptance of Schedules

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

- 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
- 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
- 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 Intent

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

3.02 Reference Standards

- A. Standards, Specifications, Codes, Laws, and Regulations
- 1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
- 2. No provision of any such standard, specification, manual or code, or any instruction of a Supplier shall be effective to change the duties or

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

3.03 Reporting and Resolving Discrepancies

A. Reporting Discrepancies

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

B. Resolving Discrepancies

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

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

3.04 Amending and Supplementing Contract Documents

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:

1. A Field Order;

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

3.05 Reuse of Documents

- A. Contractor and any Subcontractor or Supplier or other individual or entity performing or furnishing all of the Work under a direct or indirect contract with Contractor, shall not:
- 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or Engineer's consultants, including electronic media editions; or
- 2. reuse any of such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaption by Engineer.
- B. The prohibition of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 Electronic Data

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

sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.

- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party..
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

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

4.01 Availability of Lands

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

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

4.03 Differing Subsurface or Physical Conditions

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

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

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

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

C. Possible Price and Times Adjustments

- 1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and
 - b. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.
- 2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
 - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
 - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or

- c. Contractor failed to give the written notice as required by Paragraph 4.03.A.
- 3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, Owner and Engineer, and any of their Related Entities shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 Underground Facilities

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

B. Not Shown or Indicated

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will

promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

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

4.05 Reference Points

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

4.06 Hazardous Environmental Condition at Site

- A. Reports and Drawings: Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the Engineer in the preparation of the Contract Documents.
- B. Limited Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:

- 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
- 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
- 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any.
- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered to Contractor written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.
- F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to

- entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the directors, partners, employees, officers, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06. G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, employees. agents. consultants. subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 - BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

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

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

- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent must be accompanied by a certified copy of the agent's authority to act.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 Licensed Sureties and Insurers

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

5.03 *Certificates of Insurance*

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

5.04 *Contractor's Liability Insurance*

A. Contractor shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and as will provide protection

from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:

- 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts:
- 2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
- 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
- 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:
 - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
 - b. by any other person for any other reason;
- 5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
- 6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.
- B. The policies of insurance required by this Paragraph 5.04 shall:
- 1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insured (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, partners, employees, agents, consultants and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;
- 2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

- 3. include completed operations insurance;
- 4. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
- 5. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
- 6. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
- 7. with respect to completed operations insurance, and any insurance coverage written on a claimsmade basis, remain in effect for at least two years after final payment.
 - a. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

5.05 *Owner's Liability Insurance*

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

5.06 Property Insurance

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

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

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

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

5.07 Waiver of Rights

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

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

- 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
- 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 Receipt and Application of Insurance Proceeds

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

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

5.09 Acceptance of Bonds and Insurance; Option to Replace

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

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

5.10 Partial Utilization, Acknowledgment of Property Insurer

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

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.01 Supervision and Superintendence

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

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

received from the superintendent shall be binding on Contractor.

6.02 Labor; Working Hours

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

6.03 Services, Materials, and Equipment

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

6.04 Progress Schedule

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

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

6.05 Substitutes and "Or-Equals"

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

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

2. Substitute Items

- a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
- b. Contractor shall submit sufficient information as provided below to allow Engineer to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
- c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented in the General Requirements and as Engineer may decide is appropriate under the circumstances.
- d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
- 1) shall certify that the proposed substitute item will:
 - a) perform adequately the functions and achieve the results called for by the general design,
 - b) be similar in substance to that specified, and
 - c) be suited to the same use as that specified;
 - 2) will state:
 - a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time;
 - b) whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item; and

- c) whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
- 3) will identify:
- a) all variations of the proposed substitute item from that specified, and
- b) available engineering, sales, maintenance, repair, and replacement services:
- 4) and shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change,
- B. Substitute Construction Methods or Procedures: If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. Engineer's Evaluation: Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
- D. Special Guarantee: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. Engineer's Cost Reimbursement: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B Whether or not Engineer approves a substitute item so proposed or submitted by Contractor, Contractor shall reimburse Owner for the charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the charges of Engineer for making changes in the Contract

Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

- F. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.
- 6.06 Concerning Subcontractors, Suppliers, and Others
- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.
- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued . No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.
- C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:
- 1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity, nor
- 2. shall anything in the Contract Documents create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual

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

- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.
- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, and Engineer,, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 Patent Fees and Royalties

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

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

6.08 Permits

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

6.09 Laws and Regulations

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 *Taxes*

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

6.11 Use of Site and Other Areas

A. Limitation on Use of Site and Other Areas

- 1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
- 2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
- 3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, employees, agents, consultants partners, subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.
- B. Removal of Debris During Performance of the Work: During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
- C. Cleaning: Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

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

6.12 Record Documents

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

6.13 Safety and Protection

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
- 1. all persons on the Site or who may be affected by the Work;
- 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site: and
- 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Draw-

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

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

6.14 Safety Representative

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

6.15 Hazard Communication Programs

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

6.16 *Emergencies*

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

6.17 Shop Drawings and Samples

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

1. Shop Drawings

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

- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.
- 2. Samples: Contractor shall also submit Samples to Engineer for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals.
 - a. Submit number of Samples specified in the Specifications.
 - b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.
- B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals , any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. Submittal Procedures

- 1. Before submitting each Shop Drawing or Sample, Contractor shall have determined and verified:
 - a. all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto:
 - b. the suitability of all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;
 - c. all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto; and
 - d. shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.
- 2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents

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

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

D. Engineer's Review

- 1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
- 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
- 3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. Resubmittal Procedures

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

6.18 Continuing the Work

A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or

disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its Related Entities shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
- 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 - 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 - 1. observations by Engineer;
- 2. recommendation by Engineer or payment by Owner of any progress or final payment;
- 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
- 4. use or occupancy of the Work or any part thereof by Owner;
- 5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;
 - 6. any inspection, test, or approval by others; or
 - 7. any correction of defective Work by Owner.

6.20 *Indemnification*

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

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

- B. In any and all claims against Owner or Engineer or any of their respective consultants, agents, officers, directors, partners, or employees by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, partners, employees, agents, consultants and subcontractors arising out of:
- 1. the preparation or approval of, or the failure to prepare or approve, maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
- 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

6.21 Delegation of Professional Design Services

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.
- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal

shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 - OTHER WORK AT THE SITE

7.01 Related Work at Site

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or via other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
- 1. written notice thereof will be given to Contractor prior to starting any such other work; and
- 2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and shall properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and

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

Owner and such utility owners and other contractors.

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

7.02 Coordination

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

7.03 Legal Relationships

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

ARTICLE 8 - OWNER'S RESPONSIBILITIES

8.01 Communications to Contractor

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

8.02 Replacement of Engineer

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

8.03 Furnish Data

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

8.04 Pay When Due

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

8.05 Lands and Easements; Reports and Tests

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

8.06 *Insurance*

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

8.07 *Change Orders*

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

8.08 Inspections, Tests, and Approvals

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

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

8.10 Undisclosed Hazardous Environmental Condition

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

8.11 Evidence of Financial Arrangements

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

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

9.01 Owner's Representative

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

9.02 Visits to Site

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

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

9.03 Project Representative

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

9.04 Authorized Variations in Work

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

9.05 Rejecting Defective Work

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

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

9.07 Determinations for Unit Price Work

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

9.08 Decisions on Requirements of Contract Documents and Acceptability of Work

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

partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 Limitations on Engineer's Authority and Responsibilities

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to, the Resident Project Representative, if any, and assistants, if any.

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

10.01 Authorized Changes in the Work

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

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

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

10.02 Unauthorized Changes in the Work

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

10.03 Execution of Change Orders

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:
- 1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
- 2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
- 3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 Notification to Surety

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

10.05 Claims

- A. Engineer's Decision Required: All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. Notice: Written notice stating the general nature of each Claim, shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).
- C. Engineer's Action: Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
 - 1. deny the Claim in whole or in part,
 - 2. approve the Claim, or
- 3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.
- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.

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

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

11.01 Cost of the Work

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

- Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.
- 4. Costs of special consultants (including but not limited to Engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
 - 5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have

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

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, expresses, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.
- B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:
- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
- 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
- 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A and 11.01.B.
- C. Contractor's Fee: When all the Work is performed on the basis of cost-plus, Contractor's fee shall

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

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

11.02 Allowances

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

B. Cash Allowances

- 1. Contractor agrees that:
- a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
- b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. Contingency Allowance

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

11.03 Unit Price Work

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

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

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

12.01 Change of Contract Price

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
- 1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
- 2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an

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

12.02 Change of Contract Times

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

B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 Delays

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

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

13.01 Notice of Defects

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

13.02 Access to Work

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

13.03 *Tests and Inspections*

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

be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.

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

13.04 Uncovering Work

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

13.05 Owner May Stop the Work

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

13.06 Correction or Removal of Defective Work

- A. Promptly after receipt of notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).
- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 Correction Period

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

- 1. repair such defective land or areas; or
- 2. correct such defective Work; or
- 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
- 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.

- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications .
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

13.08 Acceptance of Defective Work

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

13.09 Owner May Correct Defective Work

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

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 Schedule of Values

A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress

payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 Progress Payments

A. Applications for Payments

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

B. Review of Applications

- 1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
- 2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations on the Site of the executed Work as an experienced and qualified design professional and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;

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

inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

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

C. Payment Becomes Due

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

D. Reduction in Payment

- 1. Owner may refuse to make payment of the full amount recommended by Engineer because:
 - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
 - b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - c. there are other items entitling Owner to a set-off against the amount recommended; or
 - d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
- 2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor corrects to Owner's satisfaction the reasons for such action.

3. If it is subsequently determined that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1.

14.03 Contractor's Warranty of Title

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

14.04 Substantial Completion

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

Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.

E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to complete or correct items on the tentative list.

14.05 Partial Utilization

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions.
- 1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor will certify to Owner and Engineer that such part of the Work is substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
- 2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
- 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
- 4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 Final Inspection

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals

that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 Final Payment

A. Application for Payment

- 1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.
- 2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.7;
 - b. consent of the surety, if any, to final payment;
 - c. a list of all Claims against Owner that Contractor believes are unsettled; and
 - d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
- 3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner or Owner's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.
- B. Engineer's Review of Application and Acceptance
- 1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations

under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due

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

14.08 Final Completion Delayed

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

14.09 Waiver of Claims

A. The making and acceptance of final payment will constitute:

- 1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
- 2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance

with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 Owner May Suspend Work

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

15.02 Owner May Terminate for Cause

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

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

15.03 Owner May Terminate For Convenience

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):
- 1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

- 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
- 3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and
- 4. reasonable expenses directly attributable to termination.
- B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 Contractor May Stop Work or Terminate

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

ARTICLE 16 - DISPUTE RESOLUTION

16.01 Methods and Procedures

A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be

governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

- B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.
- C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:
- 1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions, or
- 2. agrees with the other party to submit the Claim to another dispute resolution process, or
- 3. gives written notice to the other party of their intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 - MISCELLANEOUS

17.01 Giving Notice

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
- 1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or

2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 Computation of Times

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

17.03 Cumulative Remedies

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

17.04 Survival of Obligations

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

17.05 Controlling Law

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

17.06 Headings

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

SECTION 00800

SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (EJCDC, 2002 Edition) and other provisions of the Contract Documents as indicated below. All provisions which are not specifically amended or supplemented hereby remain in full force and effect.

ARTICLE 1. DEFINITIONS AND TERMINOLOGY

SC-1.01

Amend paragraph A by amending paragraph A.45 to add the following to the end of the paragraph:

"This project shall be considered substantially complete when the following items are complete

- Water system is complete and functional to the satisfaction of the OWNER,
- Roadway has binder course pavement complete to the satisfaction of the OWNER,
- All driveway aprons are complete to the satisfaction of the OWNER,
- Side slopes, swales, and lawns are complete to the satisfaction of the OWNER,
- Vegetation is established on all disturbed areas to the satisfaction of the OWNER.
- All gravel shoulders are complete to the satisfaction of the OWNER.

All work shall be completed to the satisfaction of the OWNER and the ENGINEER."

The following terms, in addition to those outlined in the General Conditions as used in the Contract Documents, are defined as follows:

- 53. MEASUREMENT AND PAYMENT Shall be as defined in section 109 of the NHDOT STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION dated 2016.
- 54. OWNERS CONSULTANT AND OWNERS AGENT Consulting firm assisting the Owner with the project.

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ARTICLE 2. PRELIMINARY MATTERS

SC-2.01

Insert the following paragraphs 2.01.C and 2.01.C.1 into the General Conditions:

- 2.01.C Before any work at the site is started, CONTRACTOR shall deliver to OWNER, with a copy to ENGINEER, certificates of insurance (and other evidence of insurance requested by OWNER) which CONTRACTOR is required to purchase and maintain in accordance with the requirements of Article 5.
- 2.01.C.1 Contractor shall include and identify on the certificate of insurance, indemnification as required by Article 6.20 of the General Conditions (Section 00700).

SC-2.02

Amend the first sentence of paragraph 2.02A to read as follows:

"OWNER shall furnish to the CONTRACTOR up to two (2) printed or hard copies of the Drawings and Project Manual."

SC-2.03

Delete paragraph 2.03.A of the General Conditions in its entirety and insert the following in its place to read as follows:

2.03.A The Contract Time will commence to run as specified in the Agreement.

SC-2.08

Add the following new paragraphs immediately after paragraph 2.07 of the General Conditions as follows:

2.08 Progress of the Work

It is the intent of the Owner that once the Contractor has mobilized to begin construction that the project be prosecuted continuously without interruption with the work continuing until the project is complete. Stoppage of the work for any reason shall be only as approved/directed by the Owner in writing.

ARTICLE 3. CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

SC-3.01

Add the following new paragraphs immediately after paragraph 3.01.A of the General Conditions which are to read as follows:

3.01.A.1 Each and every provision of law and clause required by law to be inserted in the Contract shall be deemed to be inserted herein, and the Contract shall be read and

SUPPLEMENTARY CONDITIONS 00800 - 2

enforced as though they were included herein. If through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, the Contract shall forthwith be physically amended to make such insertion.

3.01.A.2 Sections of Division 1 - General Requirements govern the execution of the work of all sections of the Specifications.

ARTICLE 4. AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS

SC-4.02 Add the following new paragraph immediately after paragraph 4.02.B

SC-4.02C

Reports and Drawings: See Appendices

SC-4.05.

Add the following new paragraph immediately after paragraph 4.05.A of the General Conditions which is to read as follows:

4.05.B "The CONTRACTOR shall establish horizontal and vertical points in the field. The CONTRACTOR shall employ, at his/her expense, a competent surveyor licensed in the State of New Hampshire to remove and reset monuments. All layout shall be established prior to beginning construction and is subject to review by the ENGINEER. If in the opinion of the ENGINEER insufficient layout has been provided, the work shall be halted and additional layout provided. This halting of the work and providing of additional layout shall not constitute an additional cost to the OWNER." ENGINEER may also check the lines, elevations, reference marks, batter boards, etc., 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 accurate and satisfactory construction and completion of the entire Work. CONTRACTOR shall furnish personnel to assist ENGINEER in checking lines and grades.

ARTICLE 5. BONDS AND INSURANCE

SC-5.04

The limits of liability for the insurance required by paragraph 5.04 of the General Conditions shall provide the following coverages for not less than the following amounts or greater where required by Laws and Regulations:

5.04.A.1 and 5.04.A.2 Worker's Compensation, etc. under paragraphs 5.04.A.1 and 5.04.A.2 of the General Conditions:

(1) Worker's Compensation

As required by the laws of the State of New Hampshire

SUPPLEMENTARY CONDITIONS 00800 - 3

(2) Employer's Liability

\$100,000 each accident \$500,000 disease–policy limit \$100,000 disease-each employee

5.04.A.3, 5.04.A.4, and 5.04.A.5 Contractor's Liability Insurance under paragraphs 5.04.A.3 through 5.04.A.5 of the General Conditions which shall also include completed operations and product liability coverages and eliminate the exclusion with respect to property under the care, custody, and control of Contractor:

(1) General Aggregate

(Except Products—Completed Operations) \$2,000,000

(2) Products--Completed Operations Aggregate \$2,000,000

(3) Personal and Advertising Injury (Per Person/ Organization) \$1,000,000

(4) Each Occurrence (Bodily Injury and Property Damage) \$1,000,000

(5) Property Damage liability insurance including Collapse, and Underground coverages. If blasting is to be used, also include explosion coverage.

\$1,000,000

5.04.A.6 Automobile Liability:

(1) Bodily Injury:

Each Person \$1,000,000

Each Accident \$1,000,000

Property Damage:

Each Accident \$1,000,000

or

(2) Combined Single Limit (Bodily Injury and Property Damage):

Each Accident \$2,000,000

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

SUPPLEMENTARY CONDITIONS 00800 - 4

(1) General Aggregate \$2,000,000

(2) Each Occurrence (Bodily Injury and Property Damage)

\$1,000,000

SC-5.04.B.1

Add the following to the first sentence after the word ENGINEER:

"Owners Consultant and Owners Agent".

SC-5.05

Delete paragraph 5.05 of the General Conditions in its entirety and insert the following in its place:

5.05.A CONTRACTOR shall purchase and maintain a separate Owner's Protective Liability policy, issued to OWNER at the expense of CONTRACTOR, including OWNER and ENGINEER and Owners consultant and Owners Agent as named insured. This insurance shall provide coverage for not less than the following amounts:

5.05.A.1 Bodily Injury:

Each Occurrence \$1,000,000

5.05.A.2 Property Damage:

Each Occurrence \$1,000,000

Annual Aggregate \$2,000,000

SC-5.06

Delete paragraph 5.06 of the General Conditions in its entirety.

ARTICLE 6. CONTRACTOR'S RESPONSIBILITIES

SC-6.01B

Add the following to the first sentence of paragraph B immediately following the word "who":

"shall be acceptable to the OWNER and who"

SC-6.02A

Add the following to the end of paragraph A:

"The CONTRACTOR shall provide a Land Surveyor, Licensed/Registered in the

SUPPLEMENTARY CONDITIONS 00800 - 5

State of New Hampshire to removed and reset monuments required by the Contract Documents to the satisfaction of the Engineer."

SC-6.03D

Add the following new paragraph immediately after paragraph 6.03.C

"The CONTRACTOR shall carefully protect the work of the project against damage due to inclement weather. In the event of the temporary suspension of work or whenever the ENGINEER shall direct, the CONTRACTOR will protect his work, and the work of his subcontractors against damage from the weather. If in the opinion of the ENGINEER, any work or material shall have been damaged by reason on the part of the CONTRACTOR or any of his subcontractors, the damaged materials and work shall be removed and replaced at the expense of the CONTRACTOR."

SC-6.06.D

Add the following new subparagraph as follows:

6.06.D.1 OWNER or ENGINEER may furnish to any such Subcontractor, Supplier, or other person or organization, to the extent practicable, information about amounts paid to CONTRACTOR in accordance with CONTRACTOR's Applications for Payment on account of the particular Subcontractor's, Suppliers, other person's, or other organization's Work.

SC-6.10

Add the following language after paragraph 6.10.A of the General Conditions:

6.10.A.1 The materials and supplies to be used in the Work under this Contract are exempt from the Sales and Use Tax of the State of New Hampshire. Contractor shall obtain the proper certificates, maintain the necessary records, and otherwise comply with all applicable requirements governing the exemption from sales tax.

SC-6.11B

Amend paragraph B by adding the following:

"All waste materials, rubbish, surplus materials obtained from any type of excavation and not needed for further use as determined by the ENGINEER and other rubbish shall become the property of the CONTRACTOR and shall be legally disposed of by him outside of the project site, at no additional cost to the OWNER."

SC-6.17

Add the following new paragraph immediately after paragraph 6.17.E of the General Conditions, which is to read as follows:

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6.17.F The accuracy of all such information submitted by the Contractor is the responsibility of the Contractor. In reviewing Shop Drawings, Samples and similar submittals, the Engineer shall be entitled to rely upon the Contractor's representation that such information is correct and accurate.

SC-6.19A

Amend paragraph A by adding the following after the last sentence:

"The warranty period shall commence on the date which final payment is made and shall run for one (1) year."

SC-6.22

Add the following new section immediately after section 6.21

6.22 - Preconstruction Video

The CONTRACTOR shall conduct a preconstruction video of the entire project. The video shall document the existing conditions along the project corridor. The video shall document the condition of all existing features which are within the limits of the contract. A copy of the video shall be provided to the Owner and the Engineer prior to the start to construction. The cost of the video and provision of copies shall be considered incidental to the contract and no additional compensation shall be provided.

ARTICLE 8. OWNER'S RESPONSIBILITIES

SC-8.06

Delete paragraph 8.06 of the General Conditions in its entirety.

ARTICLE 10. CHANGES IN THE WORK; CLAIMS

SC-10.01A

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

10.01.A.1 Upon request of the Owner or the Engineer, the Contractor shall, without cost to the Owner, submit to the Engineer, in such form as the Engineer may require, an accurate written estimate of the cost of any such proposed extra Work or change. The estimate shall indicate the quantity and unit cost of each item of materials, and the number of hours of work and hourly rate for each class of labor, as well as the description and amounts of all other costs chargeable under the terms of this Article. Unit labor costs for the installation of each item of materials shall be shown if required by the Engineer. The Contractor shall promptly revise and resubmit such estimate if the Engineer determines that it is not in compliance with the requirements of this Article, or that it contains errors of fact or mathematical errors. If required by the Engineer, in order

SUPPLEMENTARY CONDITIONS 00800 - 7

to establish the exact cost of new Work added or previously required Work omitted, the Contractor shall obtain and furnish to the Engineer bona fide proposals from recognized suppliers or subcontractors for furnishing any material or labor included in such Work. Such estimates shall be furnished promptly so as to occasion no delay in the Work, and shall be furnished at the Contractor's expense. The Contractor shall state in the estimate any extension of time required for the competition of the Work if the change or extra work is ordered.

SC-10.05

Add the following new section immediately after section 10.05F of the General Conditions, which is to read as follows:

10.05G CLAIMS DUE TO UTILITY COMPANIES

The Contractor will not be allowed any claim for damage or compensation due to the utility companies failure to relocate existing facilities or to locate existing facilities in a timely manner.

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

SC 12.01.C2.a

Amend the first sentence of by changing "15 percent" to "10 percent".

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

Add the following new paragraphs immediately after paragraph 13.03.B.3 of the General Conditions, which are to read as follows:

13.03.B.4 The Contractor shall employ and pay for an independent testing laboratory acceptable to the Owner and Engineer for the purposes of performing field and laboratory material evaluation tests in accordance with the requirements of the applicable sections of the contract documents including any retesting of defective or rejected materials, and materials for replacement that may be required by the Owner.

13.03.B.5 The Contractor shall pay for any retesting of defective or rejected materials including paving materials that may be required by the Owner in accordance with the requirements of the NHDOT Standard Specifications, current version.

13.05A

Amend paragraph A by adding the following:

"The CONTRACTOR shall not be entitled to any extension of the Contract times or an increase in the Contract Price due to stoppage of the work by the OWNER as identified herein."

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ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

SC 14.09A

Add the following new paragraph immediately after paragraph 14.09.A.2

3. The CONTRACTOR agrees that he will indemnify and save the OWNER harmless from all claims growing out of the lawful demands for payment for any labor or materials of subcontractors, laborers, workmen, mechanics, material men, and furnishers of machinery and parts thereof, equipment, power tools and all supplies, including commissary, incurred in the furtherance of the performance of this contract. The CONTRACTOR shall, at the OWNER'S request, furnish satisfactory evidence that all obligations of the nature herein designated have been paid, discharged, or waived in connection with this contract. CONTRACTOR shall not be in default of its obligations under this paragraph if the reason that CONTRACTOR has not paid a subcontractor is that such payment is covered by an Application for Payment for which CONTRACTOR has not yet been paid by OWNER.

ARTICLE 16. DISPUTE RESOLUTION

SC-16

Add the following new paragraph immediately after paragraph 16.01.A of the General Conditions to read as follows:

16.01.A.1 CONTRACTOR shall carry on the Work and maintain the progress schedule during the dispute resolution proceedings unless otherwise agreed in writing by OWNER and CONTRACTOR.

ARTICLE 17. MISCELLANEOUS

SC-17.06

Add the following new paragraph immediately after paragraph 17.06.A of the General Conditions, which is to read as follows

17.06.A.1 The headings or titles of any article, paragraph, subparagraph, section, subsection, or part of the Contract Documents shall not be deemed to limit or restrict the article, paragraph, section, or part.

SC-17

Add the following new paragraphs immediately after paragraph 17.06 of the General Conditions as follows:

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17.07 Legal Address of Contractor

17.07.A CONTRACTOR'S business address and his office at or near the site of the Work are both hereby designated as places to which communications shall be delivered. The depositing of any letter, notice, or other communication in a postpaid wrapper directed to the CONTRACTOR'S business address in a post office box regularly maintained by the Post Office Department or the delivery at either designated address of any letter, notice, or other communication by mail or otherwise shall be deemed sufficient service thereof upon CONTRACTOR, and the date of such service shall be the date of receipt. The first-named address may be changed at any time by an instrument in writing, executed and acknowledged by CONTRACTOR and delivered to ENGINEER. Service of any notice, letter, or other communication upon the CONTRACTOR personally shall likewise be deemed sufficient service.

SC-17

Add the following new paragraphs immediately after paragraph 17.07 of the General Conditions as follows:

17.08 Project Drawings At Site

The Contractor is to keep a copy of this contract and accompanying PROJECT DRAWINGS at the site of the Work at all times while Work is being performed and said copy is to be available to those in charge of the Work. A Copy of the NHDOT - STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION dated 2016 shall also be kept on site at all times.

END OF SECTION 00800

SUPPLEMENTARY CONDITIONS 00800 - 10

CHANGE ORDER

	No
DATE OF ISSUANCE	EFFECTIVE DATE
OWNER	ENGINEER'S Contract No.
You are directed to make the following changes in the Description:	he Contract Documents:
Reason for Change Order: Attachments: (List documents supporting change)	
	CHANCE IN CONTRACT TIMES:
CHANGE IN CONTRACT PRICE: Original Contract Price \$	CHANGE IN CONTRACT TIMES: Original Contract Times: Substantial Completion: Ready for final payment: (days or dates)
Net Increase (Decrease) from previous Change Orders No to: \$	Net change from previous Change Orders No to No: Substantial Completion: Ready for final payment: (days)
Contract Price prior to this Change Order:	Contract Times prior to this Change Order: Substantial Completion: Ready for final payment: (days or dates)
Net increase (decrease) of this Change Order: \$	Net increase (decrease) this Change Order: Substantial Completion: Ready for final payment: (days)
Contract Price with all approved Change Orders: \$	Contract Times with all approved Change Orders: Substantial Completion: Ready for final payment: (days or dates)
RECOMMENDED: APPROV	
By: By: OWNER (Authorized Signature)	Authorized Signature) By:CONTRACTOR (Authorized Signature)
Date: Date:	Date:

Green Street Roadway Reconstruction Project

00990-1

Technical Specifications

TECHNICAL SPECIFICATIONS

All work shall be in accordance as identified these specifications and with State of New Hampshire, Department of Transportation (NHDOT) Standard Specifications for Road and Bridge Construction, approved and adopted in 2016 (Standard Specifications).

All applicable portions of the NHDOT Standard Specifications (English Units) apply to this Project, unless modified by the Supplemental Specifications or Special Provisions in this document.

The NHDOT Specifications are periodically supplemented with updates posted on the NHDOT website at

http://www.nh.gov/dot/org/projectdevelopment/highwaydesign/specifications/supplementals/index.htm. All applicable supplemental specifications for sections 201 through 718 available at the time that the bid is due will be considered part of this contract specification.

The NHDOT Standard Plans for Road and Bridge Construction considered part of this project are listed in the plan index and are included in the plan set.

This list is not all inclusive and does not relieve the Contractor from complying with any or all NHDOT specifications or plans referred to by the contract documents or referred to by sections of the NHDOT specifications that apply. It is the contractor's responsibility to obtain copies of these specifications and plans. These plans may also be downloaded, free of charge, from the NHDOT website at:

http://www.nh.gov/dot/org/projectdevelopment/highwaydesign/standardplans/index.htm

NHDOT standard Specifications for Road and Bridge Construction and NHDOT Standard Plans for Road and Bridge Construction may be purchased from NHDOT, Records Section, 1 Hazen Drive, P.O. Box 483, Concord, NH 03302-0483, Phone No. 603-271-3514. These specifications may be downloaded, free of charge, from the NHDOT website at:

http://www.nh.gov/dot/org/projectdevelopment/highwaydesign/specifications/index.htm

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SPECIAL ATTENTION

THIS PROJECT IS TO BE BID AND CONSTRUCTED UNDER THE 2016 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION

NOTICE OF SUPPLEMENTAL SPECIFICATIONS

The following table is a list of all of the Supplemental Specifications that have been adopted as additions or revisions to the *Standard Specifications for Road and Bridge Construction*, **March 2016** Edition as of the date of this Proposal. The Bidder is responsible to examine each item to determine its effect, if any, upon the Contract.

<u>Note</u>: Due to the limited scope of some projects, not all Supplemental Specifications will be included in all Proposals. All Supplemental Specifications are available on-line: www.nh.gov/dot/org/projectdevelopment/highwaydesign/specifications/.

Section	Description	Revision	Previous Revision Date	Current Revision Date
DIVISION 100				
		101.79 – Revises Frequency of QPL Updates (06/06/17)		
101 I	Definitions and Terms	101.116-119 – Revises Definitions of Weather Days and Working Days (04/02/18)	06/06/17	04/02/18
106.04	Qualified Products List	Revises Frequency of Updates		06/06/17
107.01	Legal Relations and Responsibility to Public	107.01 – Revises References to DES Rules and Regulations		07/06/18
108.09	Prosecution and Progress	108.09 – Amends the Requirements for Liquidated Damages		07/06/18
109.04	Differing Site Conditions, Changes and Extra Work	Revises Rental Rate Blue Book Online Requirements (04/02/18)	01/06/12	04/02/18
DIVISION 200				
211.3.4	Vibration Monitoring	Adds reference to pre- and post- construction survey requirements		04/05/17
DIVISION 300				
DIVISION 400				
401	Plant Mix Pavements - General	2.5.1 - Adds winter binder to the design control points (04/05/17) 2.10 - No greater than 1% TRB (06/06/17) 3.4.1 - Revises Cold Feeder Requirements (07/06/18)	07/06/18	11/07/18

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		3.4.7.1 – Revises Recycled Materials Weighing Procedures (07/06/18)		
		3.4.11 - 3.4.15 – Describes Introduction of Recycled Materials at a Batch Plant and Controls Minimum Dry Time for Recycled Aggregates (07/06/18)		
		3.5.2 & 3.5.2.1 – Revises Recycled Materials Requirements (07/06/18)		
		3.10.10.1 – Removes penalty for failing tack (06/06/17)		
		3.12 – Allows a reduction in use of pneumatic-tired rollers (06/06/17)		
		3.17.1.3 - Revise NETTCP QA Technologist requirements (11/07/18)		
	3.17.3.1.1 – Revises HMA gradation specification limits, completes addition of winter binder, removes allowance for Aim change after two sub-lots (06/06/17)			
		4.1.1 – Removes reference to Night Items (06/06/17)		
403.1.3	D	Removes all references to Night Items and removes "percent wear" items. (06/06/17)	06/06/17	07/27/20
	Pavement Item Numbers	Total overhaul of Item Numbers and Descriptions to allow for type of lift in item description. (07/27/20)		
410		2.1- Adopts new AASHTO Specifications for Emulsions (04/13/16)		
	Bituminous Surface Treatment	3.4.1.1 – Revises pavement conditions, application rate for tack (01/04/17)		
		2.1.1, 2.1.2, 3.2, 3.3, 3.4 – Identifies tack sampling and penalties for non-conformance (06/06/17)	06/06/17	07/06/18
		3.2 & 3.5.2 – Amends Distribution Equipment and Initiates an Annual Tack Truck Inspection Program (07/06/18)		
411.2.5.5	Pneumatic Tired Roller	3.5.5 – Requires the use of pneumatic tired rollers on all Section 411 paving (06/06/17).	04/02/18	07/06/18
411.3.5.5		5.1.1 – Ensures Tack Used for PMST and Leveling Course is a Pay Item (07/06/18)		
				40-

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		Removes Pay Items (04/02/18)		
417	Rumble Strip Inlay	2.1 & 3.7 – Specifies PMST as the asphalt inlay to fill in rumble strips		04/02/18
DIVISION 500				
520	Portland Cement	3.8.1.1 – Revises the acceptable concrete delivery temp to 90° F (04/02/18)	04/02/18	11/07/18
	Concrete	3.1.6.2.1.2 A - Revise NETTCP QA Technologist requirements (11/07/18)		
530	Waterproofing Concrete Surfaces	Deletes Section 530		05/21/18
538	Barrier Membrane	3.3.5 – Updates the laydown temperature range.		09/15/16
563	Bridge Fence	2.8 – Allows aluminum ties for attaching bridge fence		09/15/16
568	Structural Timber	2.2, 3.4.4 & 3.4.5 – Adds specific references to AWPA Standards & wooden piles		04/02/18
582	Preformed Joint Filler	2.4 – Revises Preformed Joint Filler Requirements		04/02/18
DIVISION 600				
603 Pla	Plastic Pipe	2.3, 2.6 & 2.7 – Updated to include Polypropylene Pipe as well as associated UV Requirements (04/13/16)	04/13/16	06/02/16
		2.13 – Adds Contractor's Option (06/02/16)		
605	Plastic Pipe	2.1 & 2.2 – Updated to include Polypropylene Pipe		04/13/16
606	Guardrail	2.2 – Adds specific references to AWPA Standards & wooden piles		04/02/18
608	Detectable Warning Devices	2.6 – Updates Detectable Warning Device Requirements		04/02/18
609	Curbs	2.4.1.1 – Allows the substitution of PG 76-28 binder in lieu of fibers		04/02/18
615	Cofferdam for Sign Installation	5.1.5 – Revises payment for sheeting and shoring for sign structures		04/02/18
				106

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Erosion Control	1.1 – Matting Section Revised and Pay Items Revised (04/02/18)	07/06/18	11/07/18
	1.1 – 'Stabilization' changed to 'matting' (02/01/17)		
	Incorporates BFM, FRM and SMM into the Standard Specs (07/06/18)		
	1.2.1 – Add Erosion Control Plans to furnish for SWPPP (11/07/18)		
	3.1.5 – Update construction dates for allowable area of exposed, unstabilized soil (11/07/18)		
Dituminasa Matariala	Amends Table 702-1 & 702-2 (04/13/16)	04/13/16	05/11/16
Bituininous Materiais	Amends Tables, and Adds test method (05/11/16)		
	Erosion Control Bituminous Materials	Pay Items Revised (04/02/18) 1.1 – 'Stabilization' changed to 'matting' (02/01/17) Incorporates BFM, FRM and SMM into the Standard Specs (07/06/18) 1.2.1 – Add Erosion Control Plans to furnish for SWPPP (11/07/18) 3.1.5 – Update construction dates for allowable area of exposed, unstabilized soil (11/07/18) Amends Table 702-1 & 702-2 (04/13/16) Amends Tables, and Adds test	Pay Items Revised (04/02/18) 1.1 – 'Stabilization' changed to 'matting' (02/01/17) Incorporates BFM, FRM and SMM into the Standard Specs (07/06/18) 1.2.1 – Add Erosion Control Plans to furnish for SWPPP (11/07/18) 3.1.5 – Update construction dates for allowable area of exposed, unstabilized soil (11/07/18) Amends Table 702-1 & 702-2 (04/13/16) Amends Tables, and Adds test

Division 1 – General Requirements

SECTION 01005

SUPPLEMENTAL GENERAL REQUIREMENTS

PART 1 - GENERAL

1.1 Description

The work of this Contract is located in the Town of Wolfeboro, New Hampshire. Construction locations will generally include, but not necessarily be limited to Green Street. The work involves removing the existing pavement and gravels, adding new gravels to the roadway, binder course paving, driveway aprons, regrading of the roadside drainage swales, shoulder gravels, permanent slope stabilization, and removal and replacement of the water main and water services.

1.2 Utilities and Drainage Systems

Utility work may be undertaken by the respective owners as a part of this project. Coordination and cooperation with these utilities is essential for the swift and satisfactory completion of this project. There are existing utilities in the area belonging to those listed in Section 1040 of these contract documents.

1.3 Schedule of Work

The CONTRACTOR <u>shall not begin</u> work before 7:00 am and <u>shall end</u> all work by 5:00 pm. Construction will not be allowed on Saturdays, Sundays and holidays. For requested changes to the schedule of work, the Contractor may submit a written request detailing extended work hours or additional days, including weekend days, for consideration by the Engineer and Owner.

The CONTRACTOR shall construct the new profile grade so as to provide a safe and reasonably smooth surface at the end of each workday.

1.4 Excavations

Open excavations adjacent to the roadway shall not remain open through the hours of darkness, holidays, or periods of shutdown, unless adequately protected and specifically authorized.

1.5 Rock Excavation

No blasting will permitted between the hours of 7:00 pm and 9:00 am. A blasting permit is required from the Fire Department.

Prior to blasting, the CONTRACTOR shall notify all residents in writing with ½ mile radius at least 24 hours in advance of said blasting operations.

1.6 Testing of Materials

The testing of materials constructed under this contract may be ordered at any time. The CONTRACTOR shall be liable for the cost of testing as provided by Article 13.03

through 13.06 of the General Conditions. The CONTRACTOR shall be liable for the cost of testing when the test results show non-compliance with the specifications.

1.7 Traffic Control Plan

The following standards and specifications are considered to be part of the Traffic Control Plan:

- 1) Section 618, 619 and 632 of the NHDOT STANDARD SPECIFICATIONS
- 2) NHDOT Work Zone Traffic Control Standard Plans, as applicable.
- 3) Manual on Uniform Traffic Control Devices, current edition including latest revisions.
- 4) NHDOT Policy 402.06 Flagger and Uniformed Officer Use in Work Zones (see Section 01850)
- 5) NH Flaggers Handbook

In addition to the above standards and specifications, the specific provisions for this project are also set forth in this section.

1.8 Street Closures

No road closure shall be permitted for this project without the prior permission of the Wolfeboro Department of Public Works. The CONTRACTOR shall be permitted to close any road to through traffic for construction purposes with the prior permission of the Town and Engineer. However, the following conditions shall apply:

- 1) Access to all residences must be maintained at all times. The Engineer may direct the Contractor to restore two way traffic if traffic volumes are such that the Engineer determines the need.
- 2) The CONTRACTOR may not close the road until all school buses have exited the roadway. The timing of road closures shall be coordinated with the Town and School Department with respect to school bus routing and schedules.
- 3) It is anticipated the roadways may be shut down to through traffic from approximately 9:00 AM to 2:00 PM
- 4) The CONTRACTOR shall notify the Engineer, Wolfeboro Fire Department, Police Department, and School Department on a <u>daily</u> basis, as to the exact location and hours for the road closure.
- 5) All lane closures shall be in effect during working hours only. No overnight or unattended land closures shall be permitted unless specifically authorized by the Engineer.
- 6) All required road closure signs shall be in place before any lane is closed.

SUPPLEMENTAL GENERAL REQUIREMENTS 01005 - 2

Temporary Facilities

The CONTRACTOR shall furnish for himself, such temporary office, storage, and fabrication facilities as he may require for his own uses and shall obtain all necessary applicable permits and/or approvals required for their use.

100.12 Temporary Utility and Sanitary Services

Telephone. The CONTRACTOR will not be required to provide telephone services in the field for use by the ENGINEER.

Water. Municipal water is not available at the Project site for CONTRACTOR use, unless specifically approved by the OWNER in writing. CONTRACTOR shall coordinate with Wolfeboro DPW if use of water sources is desired. See section 01500 – Temporary Facilities and Controls, subsection 1.9 – Water for Construction Purposes for requirements.

Electricity. The CONTRACTOR shall arrange for and furnish and maintain all electricity for proper pumping, lighting, the use of power tools up to the time of final acceptance.

Sanitary Facilities. The CONTRACTOR shall provide and maintain sanitary facilities for the use of his employees and the Engineer, as may be necessary to comply with the requirements and regulations of the local and state Departments of Health

100.13 Technical Specifications

All work shall be performed in accordance with the applicable sections of the following:

The State of New Hampshire Department of Transportation (NHDOT), "Standard Specifications for Road and Bridge Construction", latest edition, including special provisions as included herein. Copies are available from the NHDOT's Record Section, 7 Hazen Drive, PO Box 483, Concord, NH 03302-0483.

Manual On Uniform Traffic Control Devices) MUTCD) – Latest Edition

100.14 Standard Specifications

References to "STANDARD SPECIFICATIONS" means the most current edition of the State of New Hampshire, Department of Transportation, "STANDARD SPECIFICATIONS for Road and Bridge Construction", including all addendum.

All work items for this project are referenced with Item Numbers and Item Descriptions similar to those currently in use by the NHDOT. Where the term "State" is used in the NHDOT STANDARD SPECIFICATIONS to denote the ownership role, it shall mean OWNER for this project. Likewise, the term "Department" shall mean ENGINEER. Any reference to other standard specifications such as those of the American Association Society for Testing Materials (ASTM) shall be understood to mean the latest edition or revision thereof and shall include all applicable amendments and revisions which are in effect thirty (30) days prior to the date of submission of bids for the contract work.

SUPPLEMENTAL GENERAL REQUIREMENTS 01005 - 3

100.15 Plans At Site

The CONTRACTOR is to keep a copy of this contract and accompanying plans at the site of the Work at all times while work is being performed and said copy is to be available to those in charge of the Work. A copy of the latest edition of the NHDOT STANDARD SPECIFICATIONS, the STANDARD PLAN SHEETS and the Manual on Uniform Traffic Control Devices, latest edition shall also be kept on site.

100.16 Record Drawings

No record drawings will be required for this project. The Contractor must coordinate all work and impacts within the Right of Way with the Town and Engineer.

100.17 Final Cleanup and Restoration of Property

On completion of the work, the area shall be cleaned up to the satisfaction of the ENGINEER including the removal of all spoil from the construction and structures, repair of pavement and planted areas and cleaning of any drains in which soil or other materials has been deposited as a result of the construction.

The CONTRACTOR'S attention is specifically directed to areas of public and private property where streets, sidewalks, stone walls, fences, shrubs, lawns and other grassed areas may be disturbed by the new construction. It shall be the CONTRACTOR'S responsibility to restore these areas to their former condition and the work will not be considered complete until such work is completed to the satisfaction of the ENGINEER.

No additional payment will be made for the above cleanup and restoration.

100.18 Progress of the Work

The CONTRACTOR shall promptly start and continue actual construction work under this contract with the necessary equipment to properly execute and complete this contract in the specified time. No cessation of CONTRACTOR'S operations will be allowed without the approval of the ENGINEER. The rate of progress shall be satisfactory to the OWNER and the ENGINEER. The CONTRACTOR shall furnish to the ENGINEER a progress schedule for the work.

100.19 Measurements and Payments

No separate measurement and payment will be made for the provisions of facilities or compliance with requirements under this section of these specifications.

100.20 Subsidiary Items

- 1. Preconstruction Video
- 2. Sweeping existing pavement prior to tack coat and overlays
- 3. Sweeping existing pavement as required by the Engineer or Owner
- 4. Working during winter conditions

SUPPLEMENTAL GENERAL REQUIREMENTS 01005 - 4

Green Street Roadway Reconstruction Project

- 5. Cleaning existing catch basins, existing drain pipes, and new drain systems prior to acceptance by the OWNER
- 6. Materials Testing
- 7. Bituminous Tack for trench patching and tack coat
- 8. Coordination with utility companies
- 9. Dewatering
- 10. Meeting the requirements of all project permits
- 11. General site cleanup
- 12. Field survey including layout
- 13. Record drawings including swing tie sketches for water and sewer facilities
- 14. Preparation of As-Built drawings including providing all necessary copies
- 15. Snow removal
- 16. Coordination with Town Departments
- 17. Temporary earth support and shoring
- 18. Dust control
- 19. Submittals

SECTION 01010

PROSECUTION OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 LOCATION OF WORK

A. The work of this Contract is located in the Town of Wolfeboro, New Hampshire. Construction location is on Green Street.

1.3 DESCRIPTION OF WORK

- A. In general and without limitation, the work to be done under this Contract includes roadway reconstruction and drainage system improvements, work within the streets and rights-of-way identified on the Drawings. The roadway reconstruction work includes removing the existing pavement and gravels, reconstruction of the roadway box including sub-base materials, and replacement of the water main and services. The work to be performed shall include the work shown on the Drawings and Details, as specified herein, and as indicated below.
- B. It is the Owners intent that the roadway reconstruction and drainage work be completed by October 31, 2023. The Contractor shall provide a schedule for review by the Engineer and Owner. The Contractor must complete the proposed work within a 12-week time frame.
- C. A general description of the work to be performed under this Contract shall include but will not necessarily be limited to the following construction operations:
 - 1. Selective tree pruning/trimming and installation of erosion control measures.
 - 2. Furnishing, installing, new water mains, water service pipes, corporations, curb stops, water gate valves, hydrant, and necessary appurtenances.
 - 3. Locating, protecting and shoring all existing utilities. Shoring all utilities and shoring or guying any utility poles as required by utility authority. Coordinating all construction activity with appropriate utility authorities.

PROSECUTION OF WORK 01010 - 1

Green Street Roadway Reconstruction Project Repairing and/or relocating any utilities broken or conflicting with construction.

- 4. Providing all traffic control and coordination with other projects in the vicinity of the project area streets.
- Disposal of excess excavated material not required for fill or backfill.
 Disposal shall be at the expense of the Contractor to the satisfaction of the Owner and in accordance with all local, state and federal regulations.
- 6. Removal and salvage and/or disposal of existing drainage materials to be replaced. Materials to be salvaged and their location for storage shall be determined by the Owner. Materials not desired for salvage by Owner shall become the property of the Contractor and disposed of by the Contractor, at no additional cost to Owner, in accordance with all local, state and federal regulations.
- Excavation, rock excavation, filling, backfilling, grading and compacting gravel base courses. Transport of excess reclaimed material to a location to be identified by Owner, and/or disposal of excess material by Contractor.
- 8. Furnishing, placing and compacting hot bituminous pavement, tack coat, saw cutting, cold planing, and pavement markings for roadway reconstruction, vertical and sloped granite curb, driveway aprons, and drainage swales.
- 9. Replacement and restoration of disturbed pavement surfaces, utilities, grass, loam/seed, posts, fences, signs, mailboxes, bounds etc. within the limits of work, and in areas outside the limits of work disturbed by construction operations. Replace any disturbed bounds utilizing the services of a Registered Land Surveyor licensed in the State of New Hampshire to perform such work.
- 10. Installation of signs in the locations specified as indicated on the contract drawings and as directed by the Engineer.
- 11. Inspect and maintain all erosion and sediment control measures.
- 12. Completion of all clean up.
- D. The work shall also conform to such additional drawings and addenda to these Specifications and Drawings as may be published or exhibited prior to the opening of the bids and to such drawings in explanation of details, or as may be furnished by the Engineer from time to time during the construction.

PROSECUTION OF WORK 01010 - 2 E. Work and materials which are necessary in the construction but which are not specifically referred to in the Specification, or shown on the Drawings, but implied by the Contract shall be furnished by the Contractor at his own cost and expense and shall correspond with the general character of the work as may be determined by the Engineer, whose decisions as to the necessity for and character of such work and materials shall be final and conclusive. It is the intent of these Specifications and Drawings to produce a complete, finished job whether shown in every detail or not.

WORK BY OTHERS

A. Cooperate and coordinate with all other Contractor's working on other projects in the project vicinity. Do not duplicate construction signs. Cover, uncover, or remove permanent signs as necessary (subsidiary to Item 619.1) to provide proper signing through the area.

1.5 WORK SEQUENCE

- A. The proposed work sequence shall be in accordance with the approved schedule submitted by the Contractor.
- B. Contractor shall complete all work (Final Completion) associated with the Green Street Roadway Reconstruction Project by the date stipulated in the Invitation to Bid.
- C. Refer to General Notes in Appendices for any additional requirements.

1.7 UTILITIES

- A. There are utility installations in the area belonging to, but not necessarily limited to the following: Wolfeboro Electric, FairPoint Communications, BayRing, and Metrocast Cablevision. See section 01040 PROJECT COORDINATION, subsection 1.4 Utility Coordination for contact information.
- B. The Contractor is responsible for all of the notifications noted below unless otherwise specifically stated:
 - Wolfeboro Electric, FairPoint Communications, BayRing, and Metrocast Cablevision.
- C. Use caution when working near the overhead and underground power distribution and service wires as well as the high-tension wires. Contact the appropriate utility for the precautionary measures required.

PROSECUTION OF WORK 01010 - 3

1.8 UNDERGROUND UTILITIES

A. There may be additional utilities to be encountered that are not shown on the Drawings, and it shall be the Contractor's responsibility to locate all existing utilities and to protect all utilities from damage or harm. All utilities interfered with or damaged shall be properly restored, at the expense of the Contractor, to the satisfaction of the Owner and the utility authority.

1.9 WORK SCHEDULE

- A. Normal construction activity shall be limited to normal business hours of 7:00 AM to 5:00 PM, Monday through Friday (except holidays) unless otherwise approved by the Engineer or the Town of Wolfeboro in writing. Night work may only be conducted with the prior approval of the Town of Wolfeboro, and if so authorized by shall be in accordance with the requirements of the Town of Wolfeboro.
- B. Work in streets, roadways and areas adjacent to them is not allowed on legal holidays and shall cease at noon on the day before legal holidays and at noon on Friday prior to Monday holidays. The holidays are as follows:

New Year's Day
President's Day
Independence Day
Columbus Day
Thanksgiving Day
Christmas Day
Civil Rights Day
Memorial Day
Labor Day
Veterans Day
Day after Thanksgiving

C. If the Contractor requires assistance from the Department of Public Works (DPW) after normal business hours (3:30 PM), the Contractor will be charged for DPW time, including manpower and vehicles. Payments of all fees accrued for this reason are the sole responsibility of the Contractor with no additional expense to the Owner.

1.10 CONTRACTOR'S USE OF PREMISES

- A. Contractor shall assume full responsibility for security of all his and his subcontractors' materials and equipment stored on the site.
- B. Contractor shall limit use of premises to areas within the Contract work area. Do not disrupt to portions of the Project beyond areas in which the Work shall be conducted.
- C. If directed by the Owner, the Contractor shall move stored items which interfere with operations of Owner for no additional compensation.

PROSECUTION OF WORK 01010 - 4

D. If necessary, Contractor shall obtain and pay for use of additional storage or work areas if needed to perform the Work.

END OF SECTION 01010

PROSECUTION OF WORK 01010 - 5

SECTION 01040

PROJECT COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this section.

1.2 RELATED SECTIONS

A. Section 01700-Project Closeout

1.3 ADMINISTRATION AND SUPERVISION

- A. Contractor shall provide sufficient administrative and on-site supervisory personnel to properly execute the work.
- B. On-site supervisory personnel shall have a minimum of 5 years experience in supervising the type of work performed. Supervisory personnel shall be approved by Owner.
- C. Contractor shall have supervisory personnel on-site at all times.
- D. Contractor shall have supervisory personnel on site during those times when subcontractors are performing work.
- E. Contractor shall contact DIG-SAFE 72 hours prior to beginning construction.
- F. Subcontractors performing work shall have copies of all necessary plans, details and specification on-site while performing the work.

1.4 UTILITY COORDINATION

- A. There are several utility companies within the project area including but not necessarily limited to the following:
 - 1. Town of Wolfeboro Municipal Electric Department (Electric)

Contact: Barry Muccio

P.O. Box 629 Wolfeboro, NH 03894

Tel: (603) 569-8157 Mobile: (603) 651-8126

Email: meddirector@wolfeboronh.us

PROJECT COORDINATION 01040 - 1

Green Street Roadway Reconstruction Project Town of Wolfeboro Water Department Contact: Rod Dempsey (Foremen)
 P.O. Box 772 Wolfeboro, NH 03894
 Mobile: (Rod) - (603) 733-6090

Email: (Rod) - wsforeman@wolfeboronh.us

 Town of Wolfeboro Sewer Department Contact: Rod Dempsey (Foremen)
 P.O. Box 772 Wolfeboro, NH 03894
 Mobile: (Rod) - (603) 733-6090

Email: (Rod) - wsforeman@wolfeboronh.us

 Town of Wolfeboro Fire Department Contact: James Pineo (Chief)
 P.O. Box 629 Wolfeboro, NH 03894
 Tel (603) 569-8190

Email: townmanager@wolfeboronh.us

5. Town of Wolfeboro Police Department Contact: Dean Rondeau (Chief)
P.O. Box 629 Wolfeboro, NH 03894
Tel (603) 569-8190
Email: wolfeboropolice@metrocast.net

6. Consolidated Communications (Telephone)
Contact: Travis Andrews (Foremen)

74 Bridge Street Lancaster, NH 03584

Tel: (603) 788-3133

Email: travisandrews@fairpoint.com

7. Metrocast (Cable Television)

Contact: Chris Read (Construction Department)

9 Apple Road Belmont, NH 03220 Tel: (603) 524-9413

Email: cread@metrocast.net

B. Wolfeboro Electric, Consolidated and Metrocast are present within the project limits. Aerial and underground utility coordination is the Contractor's responsibility in accordance with the requirements of the contract with the affected utilities in the project area. No additional costs or claims will be allowed due to delays associated with utility coordination.

PART 2 - PRODUCTS (NOT USED)

PROJECT COORDINATION 01040 - 2

PART 3 - EXECUTION

3.1 GENERAL INSTALLATION PROVISIONS

- A. Inspection of Conditions: Inspect the conditions under which Work is to be performed. Do not proceed until unsatisfactory conditions have been corrected in an acceptable manner, and at no additional cost to the Owner.
- B. Manufacturer's Written Instructions: Comply with manufacturer's written installation instructions and recommendations, to the extent that those instructions and recommendations are more explicit or stringent than requirements contained in the Contract Documents.
- C. Inspect materials or equipment immediately upon delivery and again prior to installation. Reject damaged and defective items, all at no additional cost to the Owner.
- D. Provide attachment and connection devices and methods for securing work. Secure work true to line and level. Allow for expansion and utility movement.
- E. Recheck measurements and dimensions before starting installation or erection.
- F. Install each component during weather conditions and project status that will ensure the best possible results. Isolate each part of the completed construction from incompatible material to prevent deterioration.
- G. Coordinate temporary enclosures with required inspections and tests, to minimize the necessity of uncovering completed construction for that purpose.

3.2 CLEANING AND PROTECTION

- A. During handling and installation, clean and protect construction in progress and adjoining materials in place. Install protective covering to ensure protection from damage or deterioration.
- B. Clean and maintain completed construction as frequently as necessary through the remainder of the construction period.
- C. Limiting Exposures: Supervise construction activities to ensure that no part of the construction, be it complete or in progress, is subject to

PROJECT COORDINATION 01040 - 3 harmful, dangerous, damaging, or otherwise deleterious exposure during the project. Where applicable, such exposures include, but are not limited to, the following:

- 1. Excessive static or dynamic loading.
- 2. Excessive internal or external pressures.
- 3. Excessively high or low temperatures.
- 4. Air contamination or pollution.
- 5. Water or ice.
- 6. Solvents.
- 7. Chemicals.
- 8. Heavy traffic.
- 9. Misalignment.
- 10. Unprotected storage.
- 11. Improper shipping or handling.
- 12. Theft.
- 13. Vandalism.

END OF SECTION 01040

PROJECT COORDINATION 01040 - 4

SECTION 01050

FIELD ENGINEERING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This section includes the following:
 - 1. Record drawings
 - 2 Field measurements
 - 3. Unfavorable construction conditions
 - 4. Easements and right-of-way.
 - 5. Site examination and verification of conditions.
 - 6. Connection to existing facilities.
 - 7. Restoration and protection of public and private property.

1.3 FIELD MEASUREMENTS

- A. All Work shall be done to lines, grades and elevations as directed by the Engineer.
- B. Contractor shall perform all survey, layout and measurement necessary to complete construction. Contractor shall be responsible for reestablishing existing profiles, alignments (vertical and horizontal), lines, grades and elevations and setting new profiles, alignments (vertical and horizontal), lines, grades and elevations. Survey, layout and measurements shall be verified with Engineer prior to construction. All removal and resetting of monuments shall be performed by a land surveyor licensed in the State of New Hampshire.
 - 1. Contractor shall stakeout in the field all proposed construction as

- directed by the Engineer. Stakes shall remain in place until the Engineer reviews the work completed.
- 2. Roadway: Centerline grade stakes shall be provided on both sides of the road, at 2 feet offset from edge of pavement, and set at a minimum of 50-foot intervals on tangents and at a minimum of 25 foot intervals on curves. In addition, grade stakes shall be set at road low points and at all catch basin locations.
- 3. Contractor shall not grade any roadway to less than 1% cross slope unless otherwise directed by the Engineer or shown on the plans.
- C. Contractor shall keep on site, at all times during construction operations, a level and transit and allow the Engineer unrestricted use of same at the work site. Any check by Engineer shall not be considered as approval of the Contractor's work.
- D. Contractor shall designate a field superintendent who will be responsible for survey, layout and measurements for the entire Project. Superintendent shall have a minimum of 5 years experience in construction survey and layout for the work being performed. Superintendent shall be approved by the Owner.
- E. Contractor shall employ, at his own expense a Land Surveyor licensed in the State of New Hampshire and shall have a minimum of 5 years experience in the type of work to remove and reset monuments. Surveyor shall employ experienced personnel and provide adequate supervision to satisfaction of the Engineer at all times when operations are in progress. Surveyor shall be approved by the Engineer.
- F. Contractor shall keep Engineer informed, in writing, two weeks in advance, of times and places at which work is to be performed, so that horizontal and vertical control points may be established and any checking deemed necessary by the Engineer may be performed.
- G. Remove and reconstruct Work that is improperly located as determined by the Engineer at no additional cost to the Owner.

1.4 UNFAVORABLE CONSTRUCTION CONDITIONS

A. During unfavorable weather (wet ground, extreme temperatures, etc.) or other unsuitable construction conditions, confine operations to work that will not be affected adversely by such conditions. The mixing and placing of concrete or pavement courses, the laying of masonry and the installation of sewer, water, conduit and drain systems shall be

stopped during rain storms of any intensity. All freshly placed Work shall be protected by canvas or other suitable covering. Placement of select materials under roadways or driveways, may be allowed in light rain with the approval of the Engineer.

B. No portion of Work shall be constructed under conditions that adversely affect quality or efficiency thereof, unless special means or precautions are taken to perform Work in manner acceptable to the Engineer.

1.5 EASEMENTS AND RIGHTS-OF-WAY

- A. Easements and rights-of-way for utilities, if required, will be provided by the Owner.
- B. Confine construction operations within limits indicated on Drawings and/or within limits of easements or public ways.
- C. Place construction tools, equipment, excavated materials, and pipeline materials and supplies, so as to cause least possible damage to property and interference with traffic.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Use new materials in restoration of existing facilities except where soil materials and plants may be reused, as approved by the Engineer.
- B. Existing field stones associated with walls that are to be relocated or rebuilt shall be reused to the greatest extent possible. If new stones are required, they shall match the existing stones in color, texture and size.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examination of Site and Verification of Conditions:
 - 1. Before starting operations, examine site to become acquainted with conditions to be encountered.
 - 2. Verify exact locations of sewers, water mains, gas mains, above or below ground electrical wires, other utilities, conduits and structures which may interfere with work.

- 3. Perform all exploratory excavations (test pit) prior to any excavations for utilities or structures. No excavation for utilities or structures will be allowed within 150 feet of a designated test pit until the test pit has been excavated. Contractor shall perform test pit excavations in locations where he feels information is required to perform the work.
- 4. Contact DIG-SAFE 72 hours prior to beginning construction.

3.2 CONNECTIONS TO EXISTING FACILITIES

- A. Make connections to existing facilities as indicated on Drawings, as specified, or as directed by the Engineer.
- B. Obtain permission from specific utility owners in writing prior to undertaking connections.
 - 1. Protect facilities against deleterious substances and damage.
- C. Plan in advance all connections to existing facilities, which are in service.
 - 1. All equipment, materials, and labor shall be on hand at time of undertaking connections to existing facilities in service.
 - 2. Work shall proceed continuously if necessary to complete connections within the time designated by the Engineer.
- D. Operation of valves or other appurtenances on existing utilities, when required, shall be performed by respective utility personnel.
 - A tight shutdown of existing utility authority valves is not guaranteed; Contractor shall control leakage past valves to satisfaction of the Owner and Engineer at no additional cost to the Owner.
 - The Contractor shall give utility authorities 72-hour advance notice prior to performing any work requiring the operation of system valves.

3.3 RESTORATION AND PROTECTION OF PUBLIC AND PRIVATE PROPERTY

A. Protect, shore, brace, support, and maintain all underground pipes, conduits, drains, and other underground construction uncovered or otherwise affected by construction operations.

B. Restore all public and private property including pavement, surfacing, curbs, walks, utility poles, guy wires, fences, and other surface structures affected by construction operations, together with all sod and landscaping to their original condition or better, whether within or outside easements or public ways.

END OF SECTION 01050

SECTION 01700

CONTRACT CLOSEOUT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 CLOSEOUT PROCEDURES

The Contractor shall:

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Engineer's inspection.
- B. Provide submittals to Engineer that are required by governing or other authorities.
- C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payment, and sum remaining due.
- D. Submit all warranties.
- E. Submit an affidavit that all payrolls, bills for materials and equipment, subcontractor bills, and other indebtedness connected with the work for which the Owner might in any way be responsible, have been paid or otherwise satisfied.
- F. Submit written notice showing the disposition of all insurance filings and claims.
- G. Submit record drawings, documents and samples to the Owner for use by the Engineer in the preparation of project record drawings.

1.3 FINAL CLEANING

- A. Complete the following cleaning operations before requesting inspection for Certification of Substantial Completion.
 - 1. Remove labels that are not permanent labels.
 - 2. During its progress, the work and the adjacent areas affected thereby shall be cleaned up and all rubbish, surplus materials, and unneeded construction equipment and temporary facilities shall be

CONTRACT CLOSEOUT 01700 - 1

Green Street Roadway Reconstruction Project removed and all damage repaired so that the public and property owners will be inconvenienced as little as possible.

- 3. Where material or debris has washed or flowed into or been placed in existing watercourses, ditches, gutters, drains, pipes structures, work done under this contract, or elsewhere during the course of the Contractor's operations, such material or debris shall be entirely removed and satisfactorily disposed of during the progress of the work, and the ditches, channels, drains, pipes, structures, and work, etc., shall, upon completion of the work, be left in a clean and neat condition.
- 4. On or before the completion of the work, the Contractor shall, unless otherwise especially directed or permitted in writing, tear down and remove all temporary buildings and structures built by him; shall remove all temporary works, tools, and machinery or other construction equipment furnished by him; shall remove, acceptably disinfect, and cover all organic matter and material containing organic matter in, under, and around privies, houses, and other buildings used by him; shall remove all rubbish from any grounds which he has occupied; and shall leave the roads and all parts of the premises and adjacent property affected by his operations in a neat and satisfactory condition.
- 5. The Contractor shall restore or replace, when and as directed, any public or private property damaged by his 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. Suitable materials, equipment, and methods shall be used for such restoration. The restoration of existing property or structures shall be done as promptly as practicable as work progresses and shall not be left until the end of the contract period.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01700

CONTRACT CLOSEOUT 01700 - 2

Division 2 – Site Work

SECTION 02010

SUBSURFACE INVESTIGATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. The Contractor acknowledges that he/she has satisfied himself/herself as to the nature and location of the work and the general and local conditions, including but not limited to: transportation; disposal, handling, and storage of materials; availability of labor; availability of water, electric power, and roads; uncertainties of weather, groundwater table and other similar physical conditions at the site; the conformation of subsurface materials to be encountered; the character of equipment and facilities needed prior to and during the prosecution of the work; and all other matters which can in any way affect the work or the cost thereof under this Contract.
- B. Any failure by the Contractor to acquaint himself/herself with all available information concerning the aforementioned conditions will not relieve the Contractor from responsibility for estimating properly the difficulty or cost of successfully performing the work.
- C. The Contractor's attention is directed to the General Conditions regarding differing site conditions.
- D. The Contractor acknowledges that he/she assumes all risk contingent upon the nature of the subsurface conditions, to be actually encountered by Contractor in performing the work covered by the Contract, even though such actual conditions may result in the Contractor performing more or less work than he originally anticipated.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 02010

SUBSURFACE INVESTIGATION 02010-1

Green Street Roadway Reconstruction Project

SECTION 02665

WATER DISTRIBUTION SYSTEM

PART 1 GENERAL

1.1 WORK INCLUDED

- A. Furnishing pipe and miscellaneous appurtenances.
- B. Installation.
- C. Testing.

1.2 REFERENCE STANDARDS

- A. ANSI A21.4/AWWA C104 Cement-Mortar Lining for Ductile Iron Pipe and Fittings for Water
- B. ANSI A21.10/AWWA C110 Gray Iron and Ductile Iron Fittings, 3" through 48", for Water and Other Liquids.
- C. ANSI A21.11/AWWA C111 Rubber Gasket Joints for Ductile Iron and Gray Iron Pressure Pipe and Fittings.
- D. ANSI A21.51/AWWA C151 Ductile Iron Pipe, Centrifugally Cast in Metal Molds and Sand Lined Molds, for Water and Other Liquids
- E. ANSI A21.53/AWWA C153 Ductile Iron Compact Fittings, 3 in. through 12 in., for water and other liquids.
- F. ASTM F477 Standard Specifications for Elastomeric Seals (Gaskets) for Jointing Plastic Pipe.
- G. AWWA C509 Resilient-Seated Gate Valves, 3 inch through 12 inch NPS, for Water and Sewage Systems.
- H. AWWA C502 Dry-Barrel Fire Hydrants.
- I. AWWA C600 Installation of Ductile Iron Water Mains and their Appurtenances.
- J. AWWA C651 Disinfecting Water Mains.
- K. AWWA C900 Polyvinyl Chloride (PVC) Pressure Pipe, 4 inch through 12 inch, for water.
- L. AWWA C901/C906 High Density Polyethylene water and sewer pipe
- M. ASTM D2737 Copper Tubing Size (CTS)
- N. ASTM F477 Gaskets

O. ASTM D3139 - Joints

1.3 SUBMITTALS

A. Submit shop drawings and product data in accordance with the General Conditions (EJCDC C-700)

1.04 INSPECTION AND TESTING

- A. All pipe and fittings shall be inspected and tested at the plant as required by the standard specifications to which the material is manufactured. The CONTRACTOR shall furnish in duplicate to the ENGINEER sworn certificates of such tests.
- B. In addition, the OWNER reserves the right to have any or all pipe, fittings and special casting inspected and/or tested by an independent service at either the manufacturer's plant or elsewhere. Such inspection and/or tests shall be at the OWNER's expense.
- C. Pipes and fittings shall be subjected to a careful inspection and a hammer test just before being laid or installed.

PART 2 PRODUCTS

2.1 GENERAL

- A. All products included in this section shall conform to the requirements of the standard specifications referenced herein.
- B. Pipe size shall be as shown on the Drawings.
- C. All pipe materials and methods of jointing shall be as shown on the Drawings.

2.2 ACCEPTABLE MANUFACTURERS

- A. Specifications: Products specified in this section are based on those manufactured by the following firms:
 - 1. Ductile Iron Pipe Atlantic States, U.S. Pipe, or Griffin.
 - 2. Ductile Iron Fittings and Valve Boxes Tyler.
 - 3. Gate Valves Mueller Co. 2360
 - 4. Hydrants Super Centurion 250.
 - 5. Brass Fittings & Saddles Mueller or Ford.
 - 6. High Density Polyethylene Pipe J-M Manufacturing Co.
 - 7. CTS Pipe ADS (Advanced Drainage Systems)

- 8. PVC C-900 Ipex, JM Eagle, or National Pipe and Plastics.
- B. Substitutions: Products of equal function, quality and performance may be proposed for substitution. Acceptance of substitutes shall be based on the ENGINEER'S recommendations and the acceptance of those recommendations by the OWNER. The OWNER may choose to not accept a substitute for any reason that may benefit the OWNER.

2.3 MATERIALS

- A. Ductile Iron Pipe: Pipe shall conform to ANSI A21.51/AWWA C151, Class 52, and shall have push-on joints. Pipe shall be double cement-lined with seal coat inside and out in accordance with ANSI A 21.4/AWWA C104. Push-on joints and rubber gaskets shall be in accordance with ANSI A 21.11/AWWA C 111.
- B. Ductile Iron Fittings: Fittings and solid sleeve couplings shall be ductile iron, three hundred and fifty (350) psi pressure rating, conforming to ANSI A21.10/AWWA C110 or ANSI A21.53/ AWWA C153 with mechanical joints. Fittings shall be double cement-lined with seal coat inside and out in accordance with ANSI A21.4/AWWA C104. Fitting shall be manufactured by Tyler or approved equal.
- C. Retaining Glands: Joint restraint devices shall be "Megalug", joint restraints or equal. Megalug, as manufactured by EBAA Iron Sales. Joint restraints and gaskets shall conform to ANSI A21.11/AWWA C111. Glands shall be made of ductile iron conforming to ASTM A536-80.
- D. Gate Valves: Gate valves shall be resilient wedge type with a ductile iron body and non-rising bronze stem. The valves shall meet the requirements of AWWA C509. Valves shall be rated for a minimum 250 psi working pressure. Valves shall have mechanical joints and gaskets as specified above. Valves shall open counterclockwise. Valves shall be American Flow Control, Mueller, or approved equal.
- E. Valve Boxes: Boxes shall be provided for each buried valve. Boxes shall be cast iron, of heavy pattern, adjustable type and shall be provided with cast iron cover. The upper section of the box shall have a bottom flange of sufficient bearing area to prevent settling. The bottom of the lower section shall enclose the stuffing box and operating nut of the valve. Boxes shall have a barrel of not less than five (5) inch diameter and cast iron valve box extensions shall be provided when the depth of bury is greater than five (5) feet. Boxes shall be of the sliding adjustable type with a lap of at least six (6) inches when in the extended position. Covers shall have the word "WATER" cast into them. All valve boxes shall be completely and thoroughly coated with bitumastic paint. Valve boxes shall be Tyler or equal.
- F. Hydrants: Hydrants shall conform to AWWA C502 and have Teflon-coated 5-1/4-inch valve, square bronze valve rod, 4-1/2 inch steamer connection and two (2) 2-1/2 inch hose connections. Inlet shall be mechanical joint conforming to the requirement herein. Hydrants shall open right and non-draining hydrants shall be the specified height, extension shall be furnished as needed. Painting shall be to the standard of the OWNER

- and shall be factory applied. Hydrants shall be Super Centurion 250, no substitutions for reasons of standardization.
- G. Corporation stops shall be ball valve type with PTFE coated brass ball, CC (AWWA tapered) threads, double O-ring seal, a blow-out proof stem design, and compression-type fittings with a gripper band (or grip joint). The 3/4 inch and 2-inch corporations shall be either Mueller or Ford. Corporations shall be supplied with pack-joint eighth or quarter bends where required.
- H. Service saddles shall be required for corporation stops in accordance with the table in paragraph 3.7. Service saddles shall be double strap type with 360-degree contact with the main line. The saddle body shall be constructed from nylon coated ductile iron and tapped for the size and thread type as noted above. The straps shall be constructed from stainless steel. Service Saddles shall be Mueller, Ford, or approved equal.
- I. Tubing for house services, chlorine injection points, and blow-offs shall be 3/4" CTS ASTM D2737.
- J. Curb stops shall be ball valve type with no drain hole, PTFE coated brass ball, double Oring seal, a blow-out proof stem design, and compression-type fittings with a gripper band (or grip joint). The 3/4-inch curb stops shall be either Mueller or Ford. Curb stops shall open left.
- K. Curb boxes shall be adjustable Erie style with a 9/16" diameter stainless steel by 24" long rod and a plug type cover. The box shall be furnished to meet the required depth of the curb stop. Curb boxes shall be installed at the right of way, or locations directed by the ENGINEER or OWNER.
- L. Adapter couplings/unions may be required for fitting new services to existing service lines. Such fittings shall be provided with compression-type fittings with a gripper band (or grip joint) connection. Fittings shall be Mueller or Ford. The 6" C-900 water main shall be installed in a manner to minimize the number of fittings installed.
- M. Couplings used to connect plain ends of cast or ductile iron pipe shall be of the long body solid sleeve type. The fitting, glands, and nuts shall be as specified above. Couplings used to connect plain ends of pit cast pipe to ductile iron pipe shall be a flexible ductile iron transition coupling as manufactured by Ford, wide range style FC2W.
- N. Tapping Sleeve: The proposed 10"x8" Stainless Steel Tapping Sleeve shall be SST Tapping Sleeve or approved equal.
- O. High Density Polyethylene Water Pipe: shall be 200psi, copper tube size, DR11, meeting AWWA C901/C906, ASTM D2239, ASTM 2737, and ASTM 3035 standards. HPDE pipe shall be manufactured by J-M Manufacturing Inc. or approved equal.
- P. CTS pipe shall be ¾", 200 PSI, ASTM D2737. CTS Pipe shall be ADS (Advanced Drainage Systems) or approved equal.

Q. C-900 PVC Blue Brute pipe shall be 6" & 8" DR18, 235 PSI, AWWA C900-16, ASTM D1784. C-900 PVC pipe shall be manufactured by Ipex, JM Eagle, National Pipe and Plastics, or approved equal.

PART 3 EXECUTION

3.1 GENERAL

- A. Pipe and accessories shall be handled and stored in such a manner as to ensure that pipe is installed in sound, undamaged condition. Care shall be taken not to injure the pipe coating or lining.
- B. Ductile iron pipe and fittings and the cement linings are comparatively brittle. Every care shall be taken in handling and laying pipe and fittings to avoid damaging the pipe or lining, scratching or marring machined surfaces, and abrasion of the pipe coating or lining.
- C. Any pipe showing a distinct crack with no evidence of incipient fracture beyond the limits of the visible crack, if approved, may have the cracked portion cut off by, and at the expense of the CONTRACTOR before the pipe is laid so that the pipe used is perfectly sound. The cut shall be made in the sound barrel at a point at least twelve (12) inches from the visible limits of the crack.
- D. If authorized, cutting of the pipe shall be done so that the cut is square and clean, without causing damage to the pipe lining. All pipe cutting shall be done by means of an approved type of power cutter. The use of hammer and chisel, or any other method that results in rough edges, chips and damaged pipe, is prohibited.
- E. Each pipe section shall be placed into position in the trench in such manner and by such means required to cause no damage to the pipe, person or to property.
- F. The CONTRACTOR shall furnish slings, straps and/or approved devices to provide satisfactory support of the pipe when it is lifted. Transportation from delivery areas to the trench shall be restricted to operations, which can cause no damage to the pipe units.
- G. Pipe shall not be dropped from trucks onto the ground or into the trench.
- H. The CONTRACTOR shall have on the job site, with each laying crew, all the proper tools to handle and cut the pipe.
- I. Damaged pipe coating and/or lining shall be restored before installation only as approved or directed by the ENGINEER.

3.2 CONTROL OF ALIGNMENT AND GRADE

A. The ENGINEER has shown approximate property and other control lines necessary for locating the work. The CONTRACTOR must verify the proposed locations of the new main and services with the OWNER and ENGINEER.

- B. During construction, the CONTRACTOR shall provide the ENGINEER, at his request, all reasonable and necessary materials, opportunities, and assistance for setting stakes and making measurements, including the furnishing of one (1) or two (2) rodmen or chainmen as needed at intermittent times. He shall not proceed until he has made timely request of the ENGINEER for, and has received from him, such controls and instructions as may be necessary for the work to progress. The work shall then be done in strict conformity with such controls and instructions.
- C. The CONTRACTOR shall carefully preserve benchmarks, reference points and stakes, and in case of willful or careless destruction by his own men, he will be charged with the resulting expense and shall be responsible for any mistakes or delay that may be caused by their unnecessary loss or disturbance.

3.3 PREPARATION OF BED

- A. As soon as excavation has been completed to required depth, place and compact bedding material to the elevation necessary to bring the pipe to grade (5.5' of cover, minimum).
- B. The compacted bed shall be rounded so that at least the bottom quadrant of the pipe shall rest firmly for the full length of the barrel. Suitable holes for bells or couplings shall be dug around the pipe joints to provide ample space for making tight joints.

3.4 LAYING PIPE

- A. Laying of pipe and fittings shall be in accordance with the requirements of AWWA Specifications and as specified herein.
- B. Each pipe length shall be inspected for cracks, defects in coating or lining, and any other evidence of unsuitability.
- C. Pipe shall be laid in the dry and at no time shall water in the trench be permitted to flow into the pipe.
- D. The pipe shall then be laid on the trench bedding, and the pipe pushed home. Jointing shall be in accordance with the manufacturer's instructions and appropriate ASTM or AWWA Standards, and the CONTRACTOR shall have on hand for each pipe laying crew, the necessary tools, gauges, pipe cutters, etc. necessary to install the pipe in a workmanlike manner. Pipe laying shall proceed upgrade with spigot ends pointing in the direction of flow.
- E. Blocking under the pipe will not be permitted except where a concrete cradle is proposed, in which case precast concrete blocks shall be used.
- F. After placement of the imported screened sand blanket material, the pipe shall be checked for any debris, tools, etc. which shall be removed.
- G. If inspection of the pipe indicates that the pipe has been properly installed as determined by the ENGINEER, the CONTRACTOR may then refill or backfill the remainder of the trench.

- H. At any time that work is not in progress, the end of the pipe shall be suitably closed to prevent the entry of animals, earth, etc.
- I. Acceptable alignment shall be preserved in laying. The deflection at joints shall not exceed the manufacturer's recommendations or three (3) degrees, or Twelve (12) inches for an eighteen (18) foot length of pipe. Deflection shall be determined by taking into account the vertical and horizontal deflections of the joint. Fittings, in addition to those shown on the Drawings, shall be provided, if required, in crossings utilities which may be encountered upon opening the trench. Solid sleeves shall be used only where approved by the ENGINEER.
- J. Concrete thrust blocks shall be installed at all fittings and other locations as directed by the ENGINEER. Minimum thrust block size shall be 2'x2'x2'. Joints shall be protected by felt roofing paper prior to placing concrete. Concrete shall be placed against undisturbed material, and shall not cover joints, bolt, or nuts, or interfere with the removal of any joint. Wooden side forms shall be provided for thrust blocks.
- K. Push-on joints shall be made in strict accordance with the manufacturer's instructions. Pipe shall be laid with bell ends on the upstream side. A rubber gasket shall be inserted in the groove of the bell end of the pipe and joint surfaces shall be cleaned and lubricated. The plain end of the pipe to be entered shall then be lubricated and inserted in alignment with the bell of the pipe to which it is to be jointed and pushed home with a jack or by other means. After jointing the pipe, a metal feeler shall be used to make certain that the rubber gasket is located properly. The pipe shall then be deflected, if need be and two (2) brass wedges shall be inserted in the joint of the two pipes.
- L. Mechanical joints at valves, fittings and where designated shall be in accordance with AWWA recommendations and the instructions of the manufacturer. To assemble the joints in the field, the CONTRACTOR shall thoroughly clean the joint surfaces and rubber gasket with soapy water before tightening the bolts. Bolts shall be tightened to the specified torques. Under no conditions shall extension wrenches or pipe over handle or ordinary ratchet wrench be used to secure greater leverage.
- M. Apply a bituminous coating to all buried rods, nuts, and bolts.
- N. High density polyethylene pipe for 3/4" water services shall be installed with stainless steel inserts and compression fittings at all fittings and couplings. All PVC, HDPE, and CTS pipe shall have a 10GA tracer wire.

3.5 INSTALLATION OF VALVES AND FITTINGS

- A. Valves and boxes shall be set with the stem vertical, and box vertically centered over operating nut. Valves shall be set on a firm foundation and supported by tamping selected excavated material under and at the sides of the valve. The gate box shall be supported during backfilling and maintained in vertical alignment with the top flush with finish grade.
- B. Install couplings and fittings in accordance with manufacturer's instructions.
- C. All valves and fittings shall be installed in order to assure electrical continuity using mechanical joint retainer glands, grounding straps and brass wedges (push-on joints only).

- D. Valve and hydrant tees shall be utilized at all hydrant installations. Hydrant and valve tees shall have an integrally attached, rotatable gland that, after bolting to valve or adjoining fitting, the joint is effectively restrained from separation.
- E. Before backfilling, all exposed portions of any bolts shall be heavily coated with two (2) coats of bituminous paint.
- F. Tapping Sleeves and Tapping Valves:
 - 1. Shall be set vertically and squarely centered on the main to be tapped. Adequate support shall be provided under the sleeve and valve during the tapping operation. Sleeves shall be no closer than three feet from water main joints.
 - 2. Installations shall be made under pressure and the flow of water through the existing main shall be maintained at all times.
 - 3. Thrust blocks shall be provided behind all tapping sleeves. Proper tamping of supporting earth around and under the valve and sleeve is mandatory. After completing the tap, the valve shall be flushed to ensure that the valve seat is clean.
- G. Insertion Valve: The Insertion Valve System shall provide a means to install a permanent block (open-close) valve into a pressurized water main with no interruption of flow through the pipe and no reduction of line pressure (below 125 psig). The insertion shall be accomplished through a single circular hole cut (under full line pressure) into the top of the pipe. The valve, itself, permanently remains in the water distribution piping to allow shutdowns in the same manner as any gate, ball or butterfly block valve originally installed with the water main.

3.6 INSTALLATION OF HYDRANTS

- A. Hydrants shall be set at the location shown and bedded on a firm foundation. Each hydrant shall be set in true vertical alignment and properly braced. All nuts and bolts located below finish grade shall be given a heavy bituminous coating after installation.
- B. Concrete thrust blocks shall be placed between the rear of the hydrant inlet and undisturbed soil at the end of the trench. Minimum bearing area shall be as shown on the Drawings. Roofing felt shall be placed around hydrant elbow before placing concrete. Care shall be taken to insure that concrete does not plug the drain ports.
- C. No hydrant shall be backfilled until directed by the ENGINEER. During backfilling, additional pea stone shall be placed to a point six (6) inches above the drain port.
- D. Where directed by the ENGINEER, the CONTRACTOR shall install plugs in the hydrant drain ports.
- 3.7 INSTALLATION OF MANUAL AIR RELEASE/ CHLORINATION INJECTION POINTS

A. Install each valve box vertically, centered over the operating key, with the elevation of the top adjusted to conform to the finished surface at the completion of the Work. Adequately support the box during backfilling to maintain vertical alignment.

B. Tapping pipe:

 Tapping ductile iron pipe: Corporation stops shall be installed in ductile iron pipe with a direct tap except as indicated on the following table where a service saddle shall be installed.

<u>Tapping Saddle Requirements vs Pipe Size and Class</u>			
Pipe	Saddle Requirements	Saddle Requirements	Saddle Requirements
<u>Size</u>	for Class 50 Pipe	for Class 51 Pipe	for Class 52 Pipe
6-inch	All taps	All taps	Taps > 3/4 inch
8-inch	All taps	Taps > 3/4 inch	Taps > 1inch
10-inch	Taps > 3/4 inch	Taps > 3/4 inch	Taps > 1 inch
12-inch	Taps > 3/4 inch	Taps > 1 inch	Taps > 1-1/4 inches
16-inch	Taps > 1-1/4 inches	Taps > 1-1/2 inches	Taps > 2 inches
20-inch	Taps > 2-1/2 inches	Taps > 3 inches	Taps > 3 inches

- 2. Tapping PVC pipe: Corporation stops shall be installed in PVC pipe using a service clamp or saddle in accordance with the recommendations of the PVC pipe manufacturer.
- 3. Service saddle shall be securely fastened to the water main. Securely attach the tapping machine to the corporation, open corporation and tap pipe. Corporations shall be tightened only sufficiently to be watertight. Corporations and service saddles must have electrical continuity to facilitate thawing and tracing.
- C. When installing the corporation stop without a service saddle, rigidly fasten the tapping machine to the pipe as near the vertical diameter as possible. The corporation stops shall be installed in the pipe at 10 or 2 o'clock. The length of travel of the tap should be so established that when the corporation stop is inserted and tightened with a fourteen (14) inch wrench, a minimum of one (1) thread and a maximum of three (3) threads will be exposed on the outside. When a wet tapping machine is used, the corporation stop shall be inserted with the machine while it is still in place. The stop shall be tightened only sufficiently to be watertight and care must be constantly exercised not to over tighten.
- D. The chlorination connections shall be constructed in accordance with detail shown on the Drawings.

3.8 INSTALLATION OF SERVICES

A. Install corporation stops in the new water main either at the time of installation or later when service connections are constructed. Service connections shall be constructed after the new pipe has been tested and disinfected.

- B. When installing the corporation stop without a service saddle, follow the requirements stated in paragraph 3.07 C except that the corporation stops shall be installed in the pipe at the ten (10) o'clock or two (2) o'clock position.
- C. Service saddle shall be used in accordance with the table in paragraph 3.07 B.
- D. All work on service connections shall be properly coordinated with the Town of Wolfeboro water department.
- E. Install CTS tubing from the corporation stop to the curb stop for a new service, or connect to the existing water service pipe for service changeover. Install to a depth of 5.5 feet minimum. A "goose neck" shall be installed in the new service pipe. Care shall be exercised in the placing and laying of tubing to be sure that the pipe does not have any kinks and is not installed near sharp stones or ledge which would cause damage to the pipe. Place sand as shown on the Drawings adjacent to and above the tubing. No stones shall be placed or dropped on the tubing until the depth of sand backfill above the tubing is in excess of twelve (12) inches.
- F. Install curb stop and curb box (new service installation) at the approximate property line or as otherwise directed by the ENGINEER and connect with new tubing. Install curb box vertically, centered over the operating key, with the elevation of the top adjusted to conform to the finished grade. Adequately support the box during backfilling to maintain vertical alignment. Care must be taken to ensure that the curb box does not rest on the curb stop.
- G. Use couplings as required to connect new tubing with existing services.
- H. For CTS services, use tracer wire as shown on the drawings. Tracer wire shall be wrapped around the outside of the curb stop box to finished grade. Install all items in strict conformance with the manufacturer's literature in order to ensure electrical continuity.

3.9 TESTING

- A. The CONTRACTOR shall furnish all necessary equipment and labor for carrying out a pressure test and leakage test on the pipeline in accordance with AWWA C600 Specifications.
- B. The CONTRACTOR shall make any taps and furnish all necessary caps, plugs, etc., as required in conjunction with testing. He shall also furnish a test pump, gauges and any other equipment required in conjunction with carrying out the hydrostatic tests. He shall at all times protect the new water mains and the existing water mains against the entrance of polluting material.
- C. Testing requirements:
 - 1. Test duration: Two (2) hours, minimum.

- 2. Test pressure: One hundred and fifty percent (150%) of maximum operating pressure as determined by the ENGINEER, or one hundred (100) psi which ever is higher.
- 3. Allowable pressure loss: Pressure shall not vary more than $\forall 5$ psi for the duration of the pressure test.
- 4. Allowable leakage: Allowable leakage shall be determined by the following formula:

$$L = \frac{SD(P)^{0.5}}{148000}$$

L = allowable leakage, in gallons per hour.

S = length of pipe tested, in feet.

D = nominal pipe diameter, in inches.

P = average test pressure, in psi (gauge).

- 5. Acceptance of installation shall be determined on the basis of allowable leakage. If any test of pipe laid discloses leakage greater than that specified, the CONTRACTOR shall, at his own expense, locate and make repairs as necessary until the leakage is within the specified allowance.
- 6. All visible leaks are to be repaired regardless of the amount of leakage.
- 7. The leakage test shall be conducted concurrently with the pressure test.

3.10 CHLORINATION

- A. Before being placed in service, all new water pipelines shall be chlorinated in accordance with the requirements of AWWA C651. The procedure shall be discussed with the ENGINEER prior to proceeding with the work.
- B. The location of the chlorination and sampling points will be determined by the ENGINEER in the field. Taps for chlorination and sampling shall be uncovered and backfilled by the CONTRACTOR as required.
- C. The general procedure for chlorination shall be first to flush all dirty or discolored water from the lines, and then introduce chlorine in approved dosages through a tap at one end, while water is being withdrawn at the other end of the line. The chlorine solution shall remain in the pipeline for at least twenty-four (24) hours.
- D. Following the chlorination period, all treated water shall be flushed from the lines at their extremities and replaced with water from the distribution system. Bacteriological sampling and analysis of the replacement water shall be made after the replacement water has occupied the chlorinated pipeline for a minimum of sixteen (16) hours by the CONTRACTOR in full accordance with AWWA C651. The CONTRACTOR will be required to re-chlorinate at no cost to the OWNER, if the test fails to achieve satisfactory results. The line shall not be placed in service until the requirements of the OWNER and

- the New Hampshire Department of Environmental Services, Water Supply and Pollution Control Division, are met.
- E. Special disinfection procedures, such as soaking or swabbing, approved by the ENGINEER shall be used in connections to existing mains and where the method outlined above is not practicable.
- F. Form of chlorine: Calcium hypochlorite granules or sodium hypochlorite solution.
- G. Method of chlorine application: Continuous feed method or slug method.
- H. Following acceptance of the disinfection process, the chlorinated water shall be flushed from the newly-laid main until such time as the replacement water throughout its entire length shall be equal in quality to that elsewhere in the system. All chlorinated water shall be de-chlorinated while it is being flushed from the main. The Contractor shall monitor the chlorine residual to insure effective de-chlorination.

END OF SECTION

SPECIAL PROVISION

SECTION 611 – WATER DISTRIBUTION SYSTEM

SECTION 611.05406 – 6" C900 WATER PIPE, DR18 SECTION 611.05408 - 8" C900 WATER PIPE, DR18 SECTION 611.50008 - 3/4" CTS SERVICE PIPE. 200 PSI SECTION 611.51007-3/4" CORPORATION STOP WITH SADDLE SECTION 611.51008-2" CORPORATION STOP WITH SADDLE SECTION 611.52007 – 3/4" CURB STOP WITH BOX SECTION 611.52020 – 2" CURB STOP WITH BOX SECTION 611.54020 - 2" HDPE SERVICE CONNECTION **SECTION 611.70006 – 6" FITTING SECTION 611.70008 - 8" FITTING** SECTION 611.71006 – 6" GATE VALVE WITH BOX SECTION 611.71008 – 8" GATE VALVE WITH BOX SECTION 611.71110 - 10"x8" SS TAPPING SLEEVE **SECTION 611.73002 - 2" COUPLING SECTION 611.77 – CHLORINE INJECTION TAP** SECTION 611.81 – HYDRANT SECTION 611.9512 - WATER MAIN INSULATION - 2" RIGID BOARD SECTION 611.999 - CUT/CAP/TERMINATE 6" WATER MAIN

Description

- 1.1 The work consists of installing new 6" and 8" C900, DR18 water main and 3/4" CTS and 2" HDPE water services on Green Street. All locations are indicated in the contract drawings and as directed by the Owner and Engineer.
- 1.2 The applicable sections of these specifications shall apply to the work including but not limited to Section 02665 WATER DISTRIBUTION SYSTEM.

Materials

2.1 All water system materials shall conform to the requirements of section 02665.

Construction Requirements

3.1 Construction requirements shall conform to the applicable construction requirements of sections 02665.

Method of Measurement

- **4.1** 6" C900 DR18 WATER PIPE (Item No. 611.05406)
 - 8" C900 DR18 WATER PIPE (Item No. 611.05408)
 - **4.1.1** Measurement shall be for the actual number of linear feet of C900 water main furnished and installed, as measured and approved by the ENGINEER. Measurement shall be measured in place along the centerline of the pipe to the

- nearest tenth of a linear foot. No deductions shall be made for valves and fittings.
- **4.1.2** Tracer wire shall be considered subsidiary to Item No 611.05406. No additional payment will be made.
- **4.1.3** Ten percent (10%) of the per linear foot price shall be withheld until testing and disinfection of the main has been successfully completed.
- **4.2** 3/4" CTS WATER SERVICES (Item No. 611.50008)
 - 2" HDPE WATER SERVICES (Item No. 611.54020)
 - 4.2.1 Measurement shall be for the actual number of linear feet of service pipe furnished and installed as measured and approved by the ENGINEER. Measurement shall be along the centerline of the pipe to the nearest tenth of a linear foot. Measurement shall be made from the corporation to the limit of new CTS/HDPE, curb stop, and union connection.
 - **4.2.2** Tracer wire shall be considered subsidiary. No Additional payment will be made.
- 4.3 3/4" CORPORATION STOPS WITH SADDLE (Item No. 611.51007)
 - 2" CORPORATION STOPS WITH SADDLE (Item No. 611.51008)
 - **4.3.1** Corporation stops shall be measured per actual number furnished and installed for service connections.
 - **4.3.2** Saddle connections required for corporation stops shall be considered subsidiary. No additional payment will be made.
- **4.4** 3/4" CURB STOP WITH BOX (Item No. 611.52007)
 - 2" CURB STOP WITH BOX (Item No. 611.52020)
 - **4.4.1** Curb stop and boxes shall be measured per unit completed. Tracer wire installed around the exterior of the curb stop box to finished grade shall be considered subsidiary.
- **4.5** 8" FITTING (Item No. 611.70008)
 - 6" FITTING (Item No. 611.70006)
 - **4.5.1** 6" & 8" Fittings shall be measured per actual number furnished and installed.
- **4.6** 6" GATE VALVE WITH BOX (Item No. 611.71006)
 - 8" GATE VALVE WITH BOX (Item No. 611.71008)
 - **4.6.1** 6" and 8" water gate valves shall be measured per actual number furnished and and installed.

4.7 10"x8" SS TAPPING SLEEVE

- 4.7.1 10"x8" SS Tapping Sleeve shall be measured per actual number furnished and installed.
- **4.8** 2" COUPLING (Item No. 611.73002)
 - **4.7.1** 2" Couplings shall be measured per actual number furnished and installed.
- **4.9** CHLORINE INJECTION TAP (Item No. 611.77)
 - **4.8.1** Chlorine injection taps shall be measured per actual number furnished and installed.
- **4.9** HYDRANT (Item No. 611.81)
 - **4.9.1** Hydrants shall be measured per actual number furnished and installed.
- 4.10 CUT/CAP/TERMINATE 6" WATER MAIN
 - **4.10.1** Cut/Cap/Terminate 6" Water main shall be measured per actual number furnished and installed.

Basis of Payment

- 5.1 Payment for Item 611.05406 6" C900, and 611.05408 8" C900 DR18 shall be at the unit price bid and shall be full compensation for the actual number of linear feet of C900 pipe furnished and installed, as measured and approved by the ENGINEER. Payment shall include, but not be limited to, saw cutting, removing, and disposing of existing bituminous pavement; excavation (except ledge and boulder excavation); remove and dispose of all existing piping components, sheeting and bracing; dewatering; furnishing and installing the pipe, gaskets, jointing; furnishing and placing bedding and blanket materials; backfilling; removal and disposal of rocks over 6-inches and less than 1 cubic yard; compacting; testing, chlorination, de-chlorination, flushing, and all required work for or incidental to the satisfactory completion of the item.
- 5.2 Payment for Item 611.50008 ¾" CTS Service Water Pipe, and Item 611.54020 2" HDPE Service Connection shall be at the unit price bid and shall be full compensation for the actual number of linear feet of service pipe furnished and installed as measured and accepted by the ENGINEER. Payment shall include, but not be limited to, saw cutting, removing, and disposing of existing bituminous pavement; excavation (except ledge and boulder excavation); remove and dispose of all existing piping components, installation of sheeting and bracing; dewatering; furnishing and installing the service pipe and miscellaneous fittings required to connect the new service pipe to the existing

services pipe; testing, disinfection and de-chlorination, furnishing and placing bedding and blanket materials; backfilling including 6 inches of crushed gravel in paved areas; removal of rocks over 6 inches in diameter and less than 1.0 cubic yard; compacting; and all work required for or incidental to the completion of the item.

- 5.3 Payment for Item $611.51007 \frac{3}{4}$ " and Item 611.51008 2" Corporation Stop with saddle shall be made at the unit price bid. Said unit price shall be full compensation for all fittings, labor, equipment, and tools necessary for the installation of the corporation stops; tapping the main; and for all other work and expenses incidental thereto.
- Payment for Item $611.52007 \frac{3}{4}$ " and Item 611.52020 2" Curb Stop with Box, shall be at the unit price bid and shall include excavation, backfill, installation and appurtenant work, and all other work and expenses incidental thereto.
- 5.5 Payment for Item 611.70008 8" Fitting, shall be at the unit price bid and shall include excavation, backfill, installation and appurtenant work, and all other work and expenses incidental thereto. Any thrust blocks or restraints required for the installation of the fittings shall be considered subsidiary to the 8" Fitting. No additional payment will be made for thrust blocks or restraints.
- 5.6 Payment for Item 611.71006 and 611.71008 6" and 8" Water Gate Valves shall be at the unit price bid and shall be full compensation for each assembly furnished and installed, as measured and approved by the ENGINEER. Payment shall include, but not be limited to, excavation (except for ledge and boulder removal); sheeting and bracing; dewatering; furnishing and installing new assembly concrete thrust blocks, thrust rods and restraints, bedding and blanket materials; water gate boxes; backfilling; compaction; furnishing spare parts and tools; and all work required for or incidental to the completion of this item.
- 5.7 Payment for Item 611.71110 10"x8" SS Tapping Sleeve shall be at the unit price bid and shall be full compensation for each assembly furnished and installed, as measured and approved by the ENGINEER. Payment shall include, but not be limited to, excavation (except for ledge and boulder removal); sheeting and bracing; dewatering; furnishing, tapping and installing new assembly, concrete thrust blocks, thrust rods and restraints, bedding and blanket materials; water gate boxes; backfilling; compaction; furnishing spare parts and tools; and all work required for or incidental to the completion of this item.
- 5.8 Payment for Item 611.77 Chlorine Injection Tap shall be at the unit price bid and shall be full compensation for each assembly furnished and installed, as measured and approved by the ENGINEER. Payment shall include, but not be limited to, excavation (except for ledge and boulder removal); sheeting and bracing; dewatering; furnishing and installing new assembly concrete thrust blocks, thrust rods and restraints, bedding and blanket materials; water gate boxes; corporation; tubing; shut off; backfilling; compaction; furnishing spare parts and tools; and all work required for or incidental to the completion of this item.
- Payment for Item 611.81 Hydrant shall be at the unit price bid and shall be full compensation for each assembly furnished and installed, as measured and approved by the ENGINEER. Payment shall include, but not be limited to, excavation (except for ledge and boulder removal); sheeting and bracing; dewatering; furnishing and installing

- new assembly concrete thrust blocks, thrust rods and restraints, bedding and blanket materials; backfilling; compaction; furnishing spare parts and tools; and all work required for or incidental to the completion of this item.
- **5.10** Payment for Item 611.951 Water Main Insulation 2" Rigid Board shall be at the unit price bid and paid by the square yard as directed by the Town or Engineer.
- 5.11 Payment for Item 611.999 Cut/Cap/Terminate Water Main shall be at the unit price bid and shall be full compensation for each assembly furnished and installed, as measured and approved by the ENGINEER. Payment shall include, but not be limited to, excavation (except for ledge and boulder removal); sheeting and bracing; dewatering; furnishing and installing new assembly, concrete thrust blocks, thrust rods and restraints, bedding and blanket materials; backfilling; compaction; furnishing spare parts and tools; and all work required for or incidental to the completion of this item.

March 2023

SPECIAL PROVISION

AMENDMENT TO SECTION 670 - MISCELLANEOUS INCIDENTALS

ADD Item 670.675 – Replace Private Water Service Connections

Description

1.1 General:

This work shall consist of all labor and materials necessary for the removal and replacement of existing private water service connections, from the outside of the foundation wall to the Town's water meter, at properties specified on the plans. The Contractor shall be responsible for properly installing new water service piping and appurtenances, from the Town's water main to the new meter inside the building, connecting to the existing water services at the meter and the complete removal and proper disposal of existing water service piping and appurtenances upstream of the existing water meter, as required in accordance with all applicable codes. The work shall meet all applicable plumbing and building codes. Work includes subsurface exploration, surface restoration of any disturbed areas of the property, testing, inspection and disinfection of the water service, as well as acquisition of any necessary permits and all coordination required to complete the work including, but not limited to coordination with the property owner, Town representatives and local/state inspectors, as required. Work shall include furnishing and installing all components required to properly replace the existing private water services in the locations shown on the plans including (but not limited to) piping and appurtenances. The work shall be coordinated with the property owner and Town in order to maintain service to the property throughout the replacement of the service

1.2 Related Sections:

All excavation, backfill, piping, and miscellaneous materials and work required for the installation of the relocated service, wherever possible, shall conform to the related applicable materials and construction requirements specifications provided in the NHDOT Standard Specifications for Road and Bridge Construction and by the plans and specifications of this contract, including, but not limited to Section 611, 02010 and 02665. All work required for the replacement of the private water service connections beyond the foundation wall, unless otherwise specified, will be subsidiary to item 670.675 Replace Private Water Service Connection and shall not be measured or paid for separately.

1.3 Submittals:

1.3.1Contractor shall submit a sketch showing the proposed layout of piping, fittings appurtenances, and any additional elements as required to install the private water services to meet all applicable codes. Include proposed pipe sizing and material

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- specifications. Materials called for in the design and on layout/shop drawings shall be identified by the NHDOT Item Number where applicable. Homeowner approval shall be required prior to conducting the work.
- 1.3.2Contractor shall submit a detailed plan for maintaining utility service during installation and connection of private water service from new main, if duration of time without water service is anticipated to be greater than 6 hours, prior to the beginning of work. No additional payment will be made for maintaining, installing, and disinfecting temporary water service.

Construction Requirements

3.1 Private Water Service Connections:

Remove and replace existing private water service connections, including all piping, fittings, plumbing, and all appurtenances as shown on the plans and in accordance with all applicable codes and regulations.

- **3.1.1** The Contractor shall notify the Homeowner when water service replacement is scheduled. The Town shall inspect existing water service materials when excavated prior to removal and replacement to confirm extents of scope of work.
- **3.1.2** A representative of the Homeowner is to accompany the Contractor at all times when entering private homes and buildings.
- 3.1.3 Contractor shall coordinate all work on or within existing private property prior to commencement of installation. Advanced notice of mobilization shall be made as part of project scheduling and at any schedule updates during the construction period. Final notification and coordination shall be made a minimum of one (1) week prior to the work.
- **3.1.4** Utility and site information on private property is limited and is not shown complete on the Drawings.
- **3.1.5** Water meters for residences are supplied and installed by the Town of Wolfeboro. Contractor is to coordinate when ready for residential meter removal and re-installation if applicable.
- **3.1.6** Disturbance of private property to remove and replace the water service shall be restored in-kind. Restoration work shall conform to the applicable specification or contract requirement.
- 3.1.7 Forty-Eight (48) hours prior to connecting to any existing water main, the Contractor shall notify the Town of Wolfeboro, Public Works and Water Departments. The contractor shall not operate any existing water main valves or primary system components. All such operations shall be coordinated with and performed by Town personnel.

Method of Measurement

4.1 Item 670.675 –Replace Private Water Service Connections shall be considered complete upon Engineer's acceptance of the work described herein and required for the handling, removal and replacement and complete/functioning installation of the private

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water services. This item shall include any necessary restoration work on private property to restore the property to the pre-construction conditions. The locating and verifying locations of water services within the limits of work, including on private property with homeowners will not be measured separately, and is incidental to this item.

Basis of Payment

5.1 Item 670.675 - Replace Private Water Service Connections

The completed Item 670.675 – Replace Private Water Service Connections shall be paid at the contract lump sum price. The price shall be full compensation for all labor, materials, and equipment required for replacement of internal plumbing upstream of the Town's water meter, for connection to the Town water service, including service pipe and fittings, shut off valves, couplings, meter yoke/connection points, tools, saw cutting concrete, coring through the existing foundation wall, connecting to exterior service, disinfection, testing, cleaning of work area, services of a plumber licensed to practice in the State of New Hampshire, and for all other work and expenses incidental thereto for which payment is not provided under other items. The Town of Wolfeboro will remove and replace water meters.

5.2 Pay items and units:

Item 670.675 – Replace Private Water Service Connections

EΑ

END OF SECTION