



2024 ANNUAL TERM CONTRACT FOR WATER AND SEWER CONSTRUCTION SERVICES

PROJECT MANUAL

Bid Opening Date: Tuesday, December 5, 2023

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TECHNICAL SPECIFICATIONS
All technical specifications shall be per the Bedford Regional Water Authority’s Master Specifications, and are bound separately from these documents.

DOCUMENT 00 11 13 – ADVERTISEMENT FOR BIDS**Invitation for Bids**

Sealed Bids for the Annual Term Contract for Water and Sewer Construction Services for Bedford Regional Water Authority will be received, by the Bedford Regional Water Authority (Authority) at 1723 Falling Creek Road, Bedford, Virginia 24523, until **2:00 p.m.** local time on **Tuesday, December 5, 2023**, at which time the Bids received will be publically opened and read aloud in the Board Room, at 1723 Falling Creek Road, Annex Building.

Project Description

Bedford Regional Water Authority is accepting bids for an Annual Term Contract for Water and Sewer Construction Services related to the repair, replacement, and installation of municipal infrastructure, such as water mains, sanitary sewers, etc. The work shall be performed on an as-needed basis and in accordance with Bedford Regional Water Authority Master Specifications.

Work Items shall be bid in unit price for labor and equipment. Bid forms shall be completed in full.

The term of the contract shall be for a twelve (12) month period, and the unit prices shall be valid for the term of the contract. An option for up to two additional twelve (12) month extensions may be considered if both parties agree, and there are no significant changes to the conditions of the contract.

Withdrawal of Bids

The procedure for withdrawal of bids shall be in accordance with Section 2.2-4330 of the Code of Virginia.

Contract Award

Bids will be received for multiple prime Contracts and awards may be made to more than one Bidder per Section 2.2– 302.1 of the Code of Virginia, as decided by the Authority upon review; however, the Authority does hereby reserve the right to award solely and completely to one Bidder. Bids shall be on a unit price basis as indicated in the Bid Form.

Bidding Documents

Contract Documents may be downloaded from the Authority's website: <http://www.brwa.com>. Addenda will be posted to the web site and it is the Contractor's responsibility to acknowledge all addenda on Bid Form. A Bid security **is not** required for this bid and should not be included in the bid package. Henceforth, all language regarding the Bid security shall be omitted.

A pre-bid meeting will not be held.

Clarifications and Addenda

Questions and clarifications on the CONTRACT DOCUMENTS must be made in writing to the Authority by **5:00 pm on Monday, November 13, 2023**. Only clarifications by formal written addenda will be binding. No oral clarification of the bid documents will be made to any bidder. All communications in regard to clarifications and any other matters related to this project shall be addressed to Whitney Quarles, P.E., Engineering Manager at, 1723 Falling Creek Road, Bedford, VA 24523, Fax: 540-586-5805, email: w.quarles@brwa.com.

Contract Licensing

Bidder's attention is invited to the requirements of Section 54.1-1100 of the Code of Virginia pertaining to registration which specifies the following with regard to contractor licensure and registration by definition:

"Class A contractors" perform or manage construction, removal, repair, or improvements when (i) the total value referred to in a single contract or project is \$120,000 or more, or (ii) the total value of all such construction, removal, repair, or improvements undertaken by such person within any 12-month period is \$750,000 or more.

"Class B contractors" perform or manage construction, removal, repair, or improvements when (i) the total value referred to in a single contract or project is \$10,000 or more, but less than \$120,000, or (ii) the total value of all such construction, removal, repair or improvements undertaken by such person within any 12-month period is \$150,000 or more, but less than \$750,000.

"Class C contractors" perform or manage construction, removal, repair, or improvements when (i) the total value referred to in a single contract or project is over \$1,000 but less than \$10,000, or (ii) the total value of all such construction, removal, repair, or improvements undertaken by such person within any 12-month period is less than \$150,000. The Board shall require a master tradesmen license as a condition of licensure for electrical, plumbing and heating, ventilation and air conditioning contractors.

The bidder shall place on the outside of the envelope containing the bid and shall place in the bid over his signature, whichever of the following notations is appropriate:

"Licensed Class A Virginia Contractor No. _____."

"Licensed Class B Virginia Contractor No. _____."

"Licensed Class C Virginia Contractor No. _____."

Nondiscrimination, Immigration, and Drug-free Workplace

The successful bidder must comply with the Presidents Executive Order #11246, prohibiting discrimination in employment regarding race, creed, sex, or national origin; Executive Orders #12138 and 11625 regarding utilization of MBE/WBE subcontractors in the performance of this contract; provide certification that they do not or will not maintain or provide for their employees facilities that are segregated on the basis of race, color, creed, or national origin; and comply with the provisions of Civil Rights Act of 1964.

The successful bidders and contractors performing work under this advertisement must meet the requirements of the Code of Virginia, Title 2.2, Chapter 43, Paragraph 2.2-4311, Employment Discrimination Prohibitions, Paragraph 2.2-4311.1, Compliance with Immigration Laws, and Paragraph 2.2-4312, Drug-free Workplace.

END OF DOCUMENT 00 11 13 - ADVERTISEMENT FOR BIDS

DOCUMENT 00 21 13 – INSTRUCTIONS TO BIDDERS**1.1 DEFINED TERMS**

Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions (EJCDC C-200, 2002 ed.) and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:

- A. *Issuing Office*--The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.
- B. *Engineer* – Individual job orders may be designed by the Bedford Regional Water Authority or their consultant; however, Bedford Regional Water Authority hereinafter called ENGINEER, is to act as OWNER's representative, assume all duties and responsibilities and has the rights and authority assigned to ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

1.2 COPIES OF BIDDING DOCUMENTS

- A. Complete sets of the Bidding Documents in the number and for the deposit sum, if any, stated in the Advertisement or Invitation to Bid may be obtained from the location stated in the Advertisement.
- B. Complete sets of Bidding Documents shall be used in preparing Bids; neither OWNER nor ENGINEER assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- C. OWNER and ENGINEER, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

1.3 QUALIFICATIONS OF BIDDERS

Each Bidder must complete and include in the bid submittal *Document 00 45 13 - Contractor Qualification Statement*. Each bidder shall include with his bid completed Schedule A and Schedule B forms with at least five (5) representative projects in the range of \$30,000 completed within the last five (5) years.

The contractor shall verify to the Owner that he/she has sufficient and qualified personnel to provide for the contract work and have the ability to provide the necessary materials and equipment on an emergency basis during non- regular hours.

Failure by the selected bidder to sufficiently satisfy the Owner on his/her ability to meet any of the above requirements will serve as grounds for rejection of the bid. No requirement in this section to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications. Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.

1.4 EXAMINATION OF BIDDING DOCUMENTS AND OTHER RELATED DATA

- A. It is the responsibility of each BIDDER before submitting a Bid to:
 - 1. examine and carefully study the Bidding Documents, the other related data identified in the Bidding Documents, and any Addenda;
 - 2. become familiar with and satisfy BIDDER as to all federal, state, and local Laws and Regulations that may affect cost, progress, performance, or furnishing of the Work;
 - 3. promptly give OWNER written notice of all conflicts, errors, ambiguities, or discrepancies that BIDDER discovers in the Bidding Documents and confirm that the written resolution thereof by OWNER is acceptable to BIDDER; and
 - 4. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.

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

1.5 AMOUNT OF WORK

Bidder's attention is called to the fact that the estimate of quantities of the various kinds of work to be done or materials to be furnished as shown in the base bid sheets are approximations only for bidding purposes, and are given as a basis of calculation for comparing bids and awarding contracts. The Owner makes no claim that the quantities or components of work outlined herein shall actually be undertaken.

The Owner reserves the right, under any contract subsequent to this solicitation, to require the successful bidder to undertake all work for which he/she is given a "Notice to Proceed" and Purchase Order, within the period of twelve months from the date of the contract at the unit prices bid in the submitted Bid Form, or as negotiated within the limits and scope of the term contract; it also reserves the right to terminate the contract or project at any time it deems necessary or proper, which might be occasioned by unforeseen changes or conditions. Contract is subject to the limitations set forth in Section § 2.2-4303.2 of the Code of Virginia. All work not specifically delineated herein with specified pricing will require prior written quotation before authorization to proceed is given. It is understood by all submitting a bid to this solicitation, that no assumption on the part of the Contractor(s) shall be made that assumes all work authorized by the Authority will be automatically granted under the terms of a subsequent term contract. Any contract issued subsequent to this solicitation shall be considered a "Convenience" contract to be used at the discretion of the Authority.

The Authority reserves the right to extend the initial contract period up to two additional 12-month periods if the Authority and the successful contractor are able to negotiate renewal.

1.6 DIVISIONS OF WORK

The work to be undertaken under the Annual Term Contract for Water and Sewer Line Construction Services shall be bid in multiple sections. The sections are described as follows:

- | | |
|--------------|---|
| Section I - | Utility Construction – Shall include all work necessary for the construction of water lines, sewer lines, repair or replacement of broken water or sewer lines, etc., and other miscellaneous related work. |
| Section II- | Specialized Utility Construction - This section addresses specialized construction efforts necessary for water and sewer line installation by directional drilling or jacking and boring, sewer rehabilitation, and other miscellaneous related work. |
| Section III- | Extra Work - This section is to be used in situations not completely covered by other pay items of Sections I or II, where additional efforts may be required utilizing manpower, equipment, and/or traffic control. This section may also be used in situations where materials are purchased or considered separately from labor and equipment. |
| Section IV- | Emergency and After-Hours Work – Similar to Extra Work, this Section is specific to separate unit costs that may apply for manpower, equipment, and mobilization in an emergency situation. |

The above-referenced items of work are listed only to give an example of the types of work to be accomplished. Because of the diversity of infrastructure construction activities, all such activities could not be listed herein.

1.7 PREPARATION OF BIDS

- A. The Bid Form is included with the Bidding Documents. Bids must be submitted using the forms furnished in the project manual, or obtained from the Authority's website.
- B. Base bid sheets that have been prepared by electronic means for calculations will be permitted, however, Bidder is responsible for accuracy, and must also submit with his bid a hard copy of the above mentioned forms signed by an authorized party.
- C. All blank spaces on the bid forms, for each section(s) so quoted, must be filled in legibly and correctly in ink or typewritten. For each scheduled item of work the Bidder shall specify the price per unit of measure and calculate the extended totals. The summation of these extended totals shall then be considered for the total price of the entire work under the contract however, unit prices offered shall govern the actual tabulation of bids.
- D. A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.
- E. A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown below the signature.
- F. A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown below the signature.
- G. A Bid by an individual shall show the BIDDER's name and official address.
- H. A Bid by a joint venture shall be executed by each joint venture in the manner indicated on the Bid Form. The official address of the joint venture shall be shown below the signature.
- I. All names shall be typed or printed in ink below the signatures.
- J. The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- K. The address and telephone number for communications regarding the Bid shall be shown.
- L. The Bid shall contain evidence of BIDDER's authority and qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the Contract. BIDDER's state contractor license number, if any, shall also be shown on the Bid Form.

1.8 SUBMITTAL OF BIDS

- A. A copy of the Bid Form is to be completed and submitted with the Bid security and additional data as listed on the Bid Form.
- B. A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the Advertisement for Bids and shall be enclosed in an opaque sealed envelope plainly marked with the Project title, the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate envelope plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to the person and location noted in the Advertisement for Bids.
- C. The Authority will not accept bids submitted after the time set for closing of receipt of bids. All late bids will be returned unopened. The Authority reserves the right to reject any or all bids, and to change the quantities after awarding the contract.

1.9 CLARIFICATIONS AND ADDENDA

- A. All questions about the meaning or intent of the Contract Documents are to be directed to OWNER. Interpretations or clarifications considered necessary by OWNER in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by OWNER as having received the Bidding Documents. Questions received less than ten days prior to the date for opening of Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- B. Addenda may also be issued to modify the Bidding Documents as deemed advisable by OWNER or ENGINEER.
- C. Failure of a bidder to receive any Addendum, or to acknowledge receipt thereof, will not relieve such Bidder from conforming with the requirements which such Addendum imposes on his bid or the Contract Documents, and may subject his Bid to disqualification by OWNER.

1.10 BID SECURITY

Each bid must be accompanied by a cashier's check on a bank satisfactory to the Owner or a Bid Bond (on the form attached) in the amount of five percent (5%) of the amount of the total base bid, made payable to the Owner, as assurance that the successful bidder will enter into contract within ten (10) days after notification of award of contract.

The Bid security of the Successful Bidder will be retained until such Bidder has executed the Contract Documents, furnished any required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and meet the required conditions of the Notice of Award within 15 days after the Notice of Award, Owner may annul the Notice of Award and the Bid security of that Bidder will be forfeited. The Bid security of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Agreement or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be returned.

1.11 PERFORMANCE BOND

A performance bond and a labor and material payment bond will be required in the amount equal to the total price for individual Job Orders based upon Bidder's contract unit prices to guarantee that he will deliver a completed project in strict accordance with the specifications and contract documents, and will pay promptly all persons supplying him with labor and materials, and shall provide that the contractor guarantees to repair or replace for a period of one year after the completion of the work, all work performed and materials and equipment furnished and make good all such defects thereof which have become apparent before the expiration of said period of one year. This shall be written through a responsive surety bond agency licensed to do business in the State of Virginia, and shall be delivered to the Owner prior to Job Order Notice to Proceed being issued.

1.12 POWER OF ATTORNEY

Attorney-in-Fact who signs bid bond or contract bond, must file with such bonds a certified copy of their Power-of-Attorney to sign such bonds on behalf of the bidder.

1.13 REGISTRATION OF CONTRACTORS

Section 54.1-1103 of the Code of Virginia, requires that bidders show evidence of registration before bids may be received and considered on a general or subcontract.

1.14 MODIFICATION OF CONTRACT

A public contract resulting from this solicitation may be modified during performance in accordance with the provisions of Sec. 2.2-4309 Virginia Public Procurement Act. In no event may the amount of any contract, without adequate consideration, be increased for any purpose, including, but not limited to, relief of an offer or from the consequences of an error in its bid or offer. Any Contract subsequent to this solicitation may be extended to allow completion of any work undertaken but not completed during the original term of the contract.

1.15 WITHDRAWAL OF BIDS AFTER DATE FOR SUBMISSION

Withdrawal of bids after date for submission shall be in accordance with the provisions of Sec. 2.2-4330 of the Virginia Public Procurement Act, a bidder will have two business days after the opening of bids within which to claim, in writing, any mistake as defined and withdrawal their bid, provided such mistake be proved from the Contractor's work papers.

- A. Definition: Contractor's work papers are the original work papers, documents, and materials used in the preparation of the bid as referred to in Sec. 2.2-4330 of the Virginia Public Procurement Act.
- B. No bidder shall withdraw, modify, or cancel any part of his bid for the number of days stated on the Bid Form.

1.16 BID OPENING

Bids will be opened at the time and place indicated in the Advertisement for Bids and read aloud publicly. An abstract of the amounts of the base bids will be made available to Bidders after the opening of Bids.

1.17 AWARD OF CONTRACT

- A. The contract will be awarded on the basis of the sum of **Section I and Section II** of the Base Bid. During the course of this contract, in order to accommodate the workloads and the projected needs of the Authority, the Authority reserves the right to accept bids and award work to contractors other than the annual contractor, if in the opinion of the designated Authority's representative, it is in the Authority's best interest to do so.
- B. This Contract shall be a unit price contract with award to a single or multiple responsible bidders submitting the lowest base bid(s) whose qualifications indicate the award will be in the best interest of the Authority and whose bid meets the prescribed requirements.
- C. No contract will be awarded until the Bids have been examined and approved by the Authority's Executive Director and Authority's Engineering Department. The final contract must be sanctioned by the Authority's Attorney, and subsequently authorized for signature by the Executive Director. Each will satisfy themselves that the bidder(s) is capable of carrying out the work so bid. The contract will be awarded to a single or multiple responsible, responsive, and best suited Bidder(s). Such award will be made within sixty (60) calendar days after opening of bids or all bids will be rejected.
- D. The Owner reserves the right to reject any and all bids and waive any and all informalities and the right to disregard all conforming or conditional bids or counterproposals. OWNER further reserves the right to reject the Bid of any BIDDER whom it finds, after reasonable inquiry and evaluation, to not be responsible. OWNER may also reject the Bid of any BIDDER if OWNER believes that it would not be in the best interest of the Project to make an award to that BIDDER. OWNER also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful BIDDER.

1.19 EXECUTION OF CONTRACT

Within 10 days after the date of award, the successful bidder to whom the contract is awarded, shall execute and deliver to the owner two (2) copies of the contract, the contract bond, satisfactory evidence of all required insurance coverage and proof, satisfactory to the Purchasing Agent, of the authority of the person or persons executing the contract. The contract shall not be binding on the Owner nor the Contractor, until it has been duly executed by the Owner and copies of the executed contract returned to the contractor.

1.20 FAILURE TO EXECUTE CONTRACT

Default of entering into contract, to execute and deliver required documents and bonds within 14 days after date of award shall be just cause for the annulment of the award and for the forfeiture of the bid guarantee to the Owner. Such forfeiture shall be in liquidated damages sustained and shall not be considered a penalty. Award may then be made to the next lowest responsive Bidder or all bids may then be rejected and the work may be re-advertised.

1.21 NOTICE TO PROCEED/ TIME OF COMPLETION

The estimated quantities as shown on the Base Bid Sheets shall be taken to mean the estimated work to be completed within the calendar year. The amount of such work authorized under the provisions of a subsequent Contract may be increased or decreased by the Authority dependent upon the actual needs of the Authority. The successful Contractor(s) may be required to complete single phases of the work within a specified time set forth by the Engineer or designated Authority representative, dependent on scheduling needs of the Authority.

The Authority will set up a time schedule for each of the various projects as they are approved. The Authority, after conferring with the contractor, may issue a written "Notice to Proceed" and a "Completion Time" which shall be mutually agreed between the Authority and the contractor. The Authority's decision shall be final in cases where agreement cannot be reached. If the contractor does not concur, he/she shall make a written request for a change prior to the effective date of the "Notice to Proceed." The contractor shall be required to begin construction within fourteen (14) consecutive calendar days after date of issuance of a "Notice to Proceed".

The contractor shall be required to complete the project by the "Completion Date" as set forth in the written "Notice to Proceed."

The contractor shall make available to the Authority a minimum of one crew for Section I work, which shall remain on awarded work under this contract, Annual Term Contract for Water and Sewer Line Construction Services, until all assigned work is completed. If workload requires, the Authority shall require more than the specified number of crews to be provided by the contractor to accommodate workloads.

1.22 LIQUIDATED DAMAGES

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

1.23 CONTRACT SECURITY AND INSURANCE

Article 6 of the General Conditions set forth Owner's requirements as to performance and payment bonds. Such bonds may be required of the Successful Bidder prior to issuance of a Job Order Notice to Proceed.

Article 6 of the General Conditions, as modified by Section 00 73 16 – Insurance Requirements, sets forth the Owner's requirements as to the types and extent of insurance coverages, which are to be furnished and maintained by the Contractor. When the Successful Bidder delivers the executed Agreement to Owner, it must be accompanied by the required Certificates of Insurance.

1.24 COOPERATIVE PROCUREMENT

In accordance with Section 2.2-4304 of the Virginia Public Procurement Act, the resultant terms and pricing structure of this bid will be made available for use by other public bodies at the sole discretion of the public bodies and the successful bidder(s).

- A. Any public body may participate in, sponsor, conduct, or administer a joint procurement agreement on behalf of or in conjunction with one or more other public bodies, or public agencies or institutions or localities of the several states, of the United States or its territories, the District of Columbia, the U.S. General Services Administration, or the Metropolitan Washington Council of Governments, for the purpose of combining requirements to increase efficiency or reduce administrative expenses in any acquisition of goods, services, or construction.
- B. In addition, a public body may purchase from another public body's contract or from the contract of the Metropolitan Washington Council of Governments or the Virginia Sheriffs' Association even if it did not participate in the request for proposal or invitation to bid, if the request for proposal or invitation to bid specified that the procurement was a cooperative procurement being conducted on behalf of other public bodies, except for:
 - 1. Contracts for architectural or engineering services; or
 - 2. Construction. This subdivision shall not be construed to prohibit sole source or emergency procurements awarded pursuant to subsections E and F of § 2.2-4303.

ADDITIONAL REQUIREMENTS2.1 GENERAL SPECIFICATIONS AND STANDARD DETAILS

Bedford Regional Water Authority Master Specifications, latest edition, this Project Manual for the Bedford Regional Water Authority, Annual Term Contract for Water and Sewer Line Construction Services, the VDOT Road and Bridge Specifications, latest edition, Plans, Special Provisions, Addenda and all Supplementary Documents become parts of the contract and any requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work.

2.2 PAYMENTS

- a. See Document 00 62 76 - Application for Payment, of this contract regarding requests for payment.
- b. See Document 00 72 00- Standard General Conditions and Document 01 22 00 Measurement and Payment, of this contract regarding descriptions for payment of work.
- c. At least five business days prior to the date of submittal of payment, the Contractor shall schedule and meet with the Authority's representative to review the progress of each project and to determine the items of work and quantities completed since the previous Application for Payment. Pay request shall be delivered to the Engineering Manager. The request shall be submitted no later than the 1st calendar day of each month, or as otherwise agreed upon. The Authority shall review and process each application in a timely manner. Errors and discrepancies shall be brought to the Contractor's attention whom in turn shall make corrections and promptly resubmit the Application for Payment. If the Engineer subsequently determines that the contractor has been overpaid, all further partial payments may be credited against such overpayment.
- d. Payment will only be made for those pay items and pay units given on the Bid Forms, or as resolved within the limits of this contract, and supported by Authority issued purchase order or Notice to Proceed. Payment will be made only for those actual quantities of work performed within the individual project scope supported by purchase order or purchase order change order if additional work above the original scope is involved.
- e. The Authority reserves the right to withhold the payment of any partial or final estimate voucher or any sum or sums thereof from such vouchers in the event of the failure of the contractor to promptly make payment to all persons supplying equipment, tools, or materials, or for any labor used by him in the prosecution of the work provided for in the contract, and for any other cause, including overpayment on previous partial payment.
- f. Payment for stored materials - when requested in writing by the contractor, allowances may be made for material delivered for use on a project, but not incorporated in the work if a bill of sale or other evidence, so as to protect the owner's title to said material be presented and the material be stored in a manner acceptable to the Authority.
- g. Final Payment - when final inspection and final acceptance have been duly made by the Authority, the contractor shall submit the final estimate representing payment for total completed quantities for the project.

Prior to final payment, the contractor shall certify to the Authority that he has made all settlements, or satisfactory arrangements therefore, for labor, materials and supplies entering into or used by him on the work and shall furnish such other certificates as are required by the Authority as a prerequisite to the issuance of final payment. In case such evidence is not furnished, any amount necessary to meet such claims may be retained by the Authority from any monies due the contractor until such claims are fully satisfied and liens therefore discharged.

All prior partial estimates and payments shall be subject to correction in the final estimate and payments. The acceptance by the contractor of this final payment made aforesaid shall operate and be a release to the Authority for all claims by and the liabilities to the contractor for all work done or materials furnished, or

for any action the Authority of its agents affecting the work.

Acceptance and final payments are not based on the term contract in its entirety, but are based on each individual project or specific event as deemed by the Authority where a final acceptance date has been established and all work approved by the Authority Engineer.

- h. The prime contractor shall take one of the two following actions within seven days after receipt of payment from the Authority with regards to work performed by a subcontractor under their contract.
 - a. Pay the subcontractor for the proportionate share of the total payment received from the Authority attributable to the work performed by the subcontractor under that contract; or
 - b. Notify the Authority and subcontractor, in writing, of his intention to withhold all or a part of the subcontractor's payment with the reason for nonpayment.

The contractor will pay interest to the subcontractor on all amounts owed by the contractor that remain unpaid after seven days following receipt by the contractor of payment from the Authority for work performed by the subcontractor under this contract, except for amounts withheld as allowed in subdivision "b" of this section. Interest shall accrue at the rate of one percent per month.

The contractor shall include in each of its subcontracts a provision requiring each subcontractor to include or otherwise be subject to the same payment and interest requirements with respect to each lower-tier subcontractor.

A contractor's obligation to pay an interest charge to a subcontractor pursuant to the payment clause in this section may not be construed to be an obligation of the Authority's. A contract modification may not be made for the purpose of providing reimbursement for such interest charge. A cost reimbursement claim may not include any amount for reimbursement for such interest charge.

- k. Contractual Disputes - Contractual claims, whether for money or other relief, shall be submitted in writing no later than sixty (60) days after final payment. However, written notice of the contractor's intention to file a claim shall be given at the time of the occurrence or beginning of the work upon which the claim is based. Pending claims shall not delay payment of amounts agreed due in the final payment.
- l. Administrative Appeals Process - Any prospective bidder may appeal a decision by the Authority in accordance with Section 2.2-4365 of the Code of Virginia., by registering a written complaint to the Authority's Engineering Manager detailing the complaint and any relief sought.
- m. Pass-through Price Increases and Decreases
 - A. Increases: The Bedford Regional Water Authority recognizes that the Contractor's sources of supply and Transportation may pass onto the Contractor unanticipated and significant price increases. The Authority will consider requests by the Contractor to allow "pass-through" price increases when accompanied with sufficient proof. Only the Contractor's direct supplier's price increases will be considered. The Authority reserves the right to accept or reject all such requests. The Authority will not allow price increases that are greater than the amount passed on to the Contractor, or for a period outside of the then current contract year.

Pass through price increases will not be a substitute for poor planning by the Contractor. Such Requests cannot be submitted until after the sixth month of the then current year.
 - B. Decreases: When and as pass through price increases are reduced or eliminated, the Contractor shall reduce the unit price accordingly.

2.3 EXTRA WORK AND FORCE ACCOUNT WORK

The Contractor shall perform unforeseen work whenever it is deemed necessary or desirable in order to complete fully the intent of an authorized project. Such work shall be performed and paid for in accordance with one of the following three methods as specified below and as approved by the Authority Engineer.

Extra work will be paid for as mutually agreed between the Authority Engineer and the Contractor prior to commencement of such work. The final decision and approval regarding the payment of work will be made by the Authority Engineer.

- A. The primary method of payment shall be made by unit price method if such line item is available within the contract. The designation of models associated with the line item represents minimum size required, other models equal to or greater may be substituted at no increase in price. Equipment prices are to include operator, expenses, overhead, special attachments, insurance, taxes, and profit. The unit price for manpower shall include all hand tools and portable power tools necessary for the work being performed. When there is no line item for payment of work, the contractor shall be required to perform such work on a force account basis and will be compensated in the following manner:
1. Labor: The contractor will receive the rate of wage set forth in his actual payroll for each classification of labor, foreman, and/or superintendents who are in direct charge of the specific operation. The time allowed for payment will be the number of hours that said personnel are actually engaged in such work. In the event overtime work is authorized, payment will be at the normal overtime rate set forth in the contractor's most recent payroll. An amount equal to 25% of the approved force account payroll will be included in the payment for labor to cover administrative costs, profit and benefits and/or deductions normally paid by the contractor.
 2. Materials: The contractor will receive the actual cost of the materials accepted by the Authority Engineer, delivered and used for the work including taxes, transportation and handling charges paid for to him to which cost, 15% will be added for administration, profit, and any other related charges. The contractor shall take full advantage of all trade discounts offered by the materials supplier. All salvageable temporary construction materials will be retained by the Authority if the Authority Engineer so desires.
 3. Equipment: The contractor will be paid hourly rental rates for pieces of machinery and equipment necessary for the prosecution of the work which is approved by the Authority's Engineer Manager. The hourly rental rates paid will not exceed the rental rates based on 1/40 of the weekly rental rates of the schedule shown in the Rental Rate Blue Book which is current at the time the Force Account is authorized. Rental rates will be paid for the time the machine or piece of equipment (excluding the operator) is in actual operation on force account work or is held and ready for the prosecution of a particular phase of force account work as authorized by the Authority Engineer. An amount equal to 15% of the preceding rental rate will be paid to the contractor to cover the costs of fuel, lubricants, repairs, servicing, (greasing, fueling, and oiling of the machinery or equipment) small tools, and other incidentals approved by the Authority Engineer. No compensation will be paid for the use of machinery or equipment, which is considered by the Authority Engineer to be unnecessary for the performance of the work. The rates for special work not listed in the Blue Book schedule used on the force account work shall not exceed the hourly rate being paid for such equipment by the contractor at the time of the force account authorization. In the absence of such rates, the prevailing rate being paid this area will apply.
 4. Miscellaneous: No additional allowances will be made for: attachments which are considered common accessories for equipment as defined in the Blue Book, general superintendents, office workers (time keepers, secretaries, etc.), the use of small tools, or other costs for which no specific allowance herein provided.
 5. Compensation: The compensation as set forth in this section shall be accepted by the contractor as payment in full for extra work done on force account basis. At the end of each day, the contractor will be responsible for scheduling and meeting with the Authority Engineer's representative to receive approval of the time of equipment, labor and materials used for that days' work.

6. Statements: No payments will be made for work performed on a force account basis until the contractor has furnished the Authority Engineer with duplicate itemized statements of the cost of such force account work detailed as follows:
 - a. Payroll indicating name, classification, dates, daily hours, total hours, rate and extension for each laborer, and foreman and/or superintendent.
 - b. Designation dates, daily hours, total hours, rate and extension for each unit of equipment.
 - c. Quantities of materials, prices, and extensions.
 - d. Transportation of materials.

Statements shall be accompanied and supported by invoices for all materials used and transportation charges. However, if materials used are not specifically purchased for such work but taken from the contractors' stock, then in lieu of the invoices, the contractor shall furnish an affidavit certifying that such materials were taken from his stock, that the quantity claimed was actually used, and that the price, transportation, and handling claimed represents the actual cost of the contractor.

- B. If the Authority Engineer desires, he may request work to be taken on a "quote basis". Such method of payment for "Extra Work" will be a "not to exceed, quote" submitted to the Authority Engineer by the contractor and will represent full compensation to the contractor for all labor, materials, and equipment to complete such work, with the scope as defined by the Authority Engineer.

2.4 SUBLETTING OF CONTRACT

Except as otherwise noted herein, Contract work amounting to not less than 80 percent of the total project or Contract shall be performed with the Contractor's own organization. "Specialty Items" so designated by the Authority Engineer may be performed by subcontract and the cost of any "Specialty Items" so performed may be deducted from the total project or Contract cost before computing the amount of work required to be performed by the Contractor's own organization. Contractors will be required to clearly identify such subcontract requirements in their preliminary estimate or quotation, or the Authority will assume the contractor has the requisite resources to meet the terms of the contract.

2.5 SUBCONTRACTS FOR EXTRA WORK

When extra work is required due to unforeseen conditions for which there is no price included in the contract and subcontractors are necessary, the contractor shall solicit written sealed bids in accordance with section 1.25 above, where possible, from at least two qualified subcontractors for such work. The contractor shall take all reasonable measures to ensure that all contractors including minority contractors are given an equal opportunity to bid on any work to be subcontracted. Quotes which include pricing for subcontract work must indicate that written bids were requested from minority contractors where available. These prices shall be on file with the contractor and available for review and approval by the Authority prior to beginning of work.

2.6 COMPENSATION FOR SUBCONTRACTS FOR EXTRA WORK

Whenever the prime contractor is required and authorized by the Authority to engage the services of a subcontractor to perform work as stated in section 2.5 above, then the following method of compensation, as set forth in this section will be made: The prime contractor may request payment up to ten (10) percent of the subcontracted net worth to cover his profit and administration cost. The amount resulting from such additive will not be subject to any further additives.

ADDITIONAL REQUIREMENTS FOR ITEMS OF CONSTRUCTION**3.1 CONSTRUCTION SCHEDULE**

The contractor shall submit a detailed construction schedule prior to beginning of any project as requested by the Engineer. The owner shall be notified in advance of any major changes in the construction schedule as these projects progress. The contractor shall contact the Engineer at least three business days before beginning work on any project or portion of such project, so that appropriate survey, if applicable and pre-construction meeting can be scheduled. The contractor shall coordinate with the Engineer or the Engineer's representative at least two business days prior to activities that may involve coordination between other Authority Departments and/or other concerned parties. Work scheduling shall be subject to the availability of services to be provided by the Authority.

Work shall not be performed on Sundays or Authority annual holidays without the permission of authorized Authority Personnel except as necessary to maintain service.

When work in the roadway is scheduled for major roadways, thoroughfares, or expressways (as defined by the Authority Engineer), the contractor cannot obstruct the roadway before 8:30 AM (when it conflicts with morning rush- hour traffic) or after 3:30 PM (when it conflicts with afternoon rush-hour traffic).

During special public events, the Engineer may require the contractor to limit or cease construction activities that may in his opinion interfere with such events.

3.2 MATERIALS TO BE FURNISHED BY THE AUTHORITY

The contractor shall furnish all materials necessary to complete each item shown in the Bid unless otherwise noted.

Where materials are furnished by the Authority, the contractor shall notify the Engineer at least 72 hours in advance of his need of the materials in question, and contact the Authority's Maintenance Department at least 24 hours before scheduled pick-up (only during normal Authority business days and hours). No payment will be made for pick-up of this material at the Authority's Maintenance Division. This cost is to be included in the unit price for any work of any nature where the Authority furnishes the material.

3.3 EMERGENCIES

When specifically authorized by the Authority Administration during periods of emergency, the Authority may direct the contractor to undertake construction-related activities to protect Authority facilities and community interests. Compensation to the contractor for such "emergency work" shall be determined as provided in the Extra Work and Force Account Work section of these specifications.

3.4 TOWN OF BEDFORD BUSINESS LICENSE

The contractor when performing work within the limits of the Town of Bedford, Virginia shall obtain a Town of Bedford Business License. The Contractor shall contact the Town of Bedford's Department of Planning and Community Development, 215 East Main Street, Bedford, Virginia 24523 for Business License, Phone 540- 587- 6143.

END OF DOCUMENT 00 21 13 – INSTRUCTIONS TO BIDDERS

DOCUMENT 00 41 00 - BID FORM**PROJECT IDENTIFICATION:**

2024 Annual Term Contract for Water and Sewer Construction Services
 Bedford Regional Water Authority
 Bedford County, VA
 BRWA Job Number 2023-072

ARTICLE 1- BID RECIPIENT

1.01 This Bid is submitted to:

Bedford Regional Water Authority (herein called "Owner")
 1723 Falling Creek Road
 Bedford, Virginia, 24523
 Attn. Whitney Blankenship, P.E., Engineering Manager

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

ARTICLE 2- BIDDER'S ACKNOWLEDGEMENT

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

ARTICLE 3- BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

- A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

Addendum No.

Addendum, Date

- B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
- E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.

- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder 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 Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.
- K. The Base Bid is founded upon furnishing equipment and materials of specified manufacturers. Substitute equipment or materials of other manufacturers may be offered for consideration in accordance with Document 00 72 00- General Conditions.
- L. It is understood and agreed that the Owner, in protecting his best interest, reserves the right to reject any or all bids, or accept any Bid at the Bid Price whereupon the Contractor shall furnish equipment and materials as specified.
- M. Contractors will indicate a unit price for each item listed below for each section bid. The listed bid items are to contain all necessary cost required for completion of the referenced projects. Any changes, erasures, modifications or deletions in the bid form, or alternate proposals not specified in the bid proposal shall make the proposal irregular and subject to rejection.
- N. It is understood that all quantities listed herein are estimated quantities and the Owner reserves the right to raise, lower, or eliminate any quantity or item and in any case the unit prices shall be used in determining partial and final payments.

ARTICLE 4 – ARTICLE 4- BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
 - 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.
- E. Bidder is properly equipped to execute work of the character and extent indicated by the bidding documents and so covered by this Bid and will enter into Agreement for the execution and completion of the work in accordance with the Drawings and Project Manual and this Bid.

ARTICLE 5 – ARTICLE 5- BASIS OF BID

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

Section I - Division A: Sanitary Sewer Line Construction					
Sanitary Sewers - All materials shall meet the requirements of the Bedford Regional Water Authority Master Specifications. The unit price of pipe shall also include any costs incurred by the contractor for tying into any existing structure or pipe (excluding machine coring of manholes).					
Item No.	Description	Quantity	Unit	Unit Price	Total
IA - 1	4" PVC Sewer pipe (SDR 35)	500	l.f.	\$ -	\$ -
	6" PVC Sewer pipe (SDR 35)	500	l.f.	\$ -	\$ -
	8" PVC Sewer pipe (SDR 35)	1,000	l.f.	\$ -	\$ -
	10" PVC Sewer pipe (SDR 35)	100	l.f.	\$ -	\$ -
	12" PVC Sewer pipe (SDR 35)	100	l.f.	\$ -	\$ -
	16" PVC Sewer pipe (SDR 35)	100	l.f.	\$ -	\$ -
	18" PVC Sewer pipe (SDR 35)	100	l.f.	\$ -	\$ -
	4" PVC Sewer pipe (SDR 26)	100	l.f.	\$ -	\$ -
	6" PVC Sewer pipe (SDR 26)	100	l.f.	\$ -	\$ -
	8" PVC Sewer pipe (SDR 26)	2,000	l.f.	\$ -	\$ -
	10" PVC Sewer pipe (SDR 26)	100	l.f.	\$ -	\$ -
	12" PVC Sewer pipe (SDR 26)	100	l.f.	\$ -	\$ -
	16" PVC Sewer pipe (SDR 26)	100	l.f.	\$ -	\$ -
	18" PVC Sewer pipe (SDR 26)	100	l.f.	\$ -	\$ -
	6" D.I. Sewer pipe (Protecto 401 lining)	100	l.f.	\$ -	\$ -
	8" D.I. Sewer pipe (Protecto 401 lining)	500	l.f.	\$ -	\$ -
	10" D.I. Sewer pipe (Protecto 401 lining)	200	l.f.	\$ -	\$ -
	12" D.I. Sewer pipe (Protecto 401 lining)	100	l.f.	\$ -	\$ -
	16" D.I. Sewer pipe (Protecto 401 lining)	50	l.f.	\$ -	\$ -
	18" D.I. Sewer pipe (Protecto 401 lining)	50	l.f.	\$ -	\$ -
IA - 2	Bored or jacked 4" PVC Sewer pipe (SDR 26)	100	l.f.	\$ -	\$ -
	Bored or jacked 6" PVC Sewer pipe (SDR 26)	50	l.f.	\$ -	\$ -
	Bored or jacked 8" PVC Sewer pipe (SDR 26)	200	l.f.	\$ -	\$ -
	Bored or jacked 8" DI Sewer pipe	200	l.f.	\$ -	\$ -
	Bored or jacked 12" DI Sewer pipe	50	l.f.	\$ -	\$ -
IA - 3	Concrete Manhole, 48" diameter	200	v.f.	\$ -	\$ -
	Concrete Manhole, 60" diameter	20	v.f.	\$ -	\$ -
	Concrete Manhole, 72" diameter	10	v.f.	\$ -	\$ -
	Concrete Manhole, 84" diameter	10	v.f.	\$ -	\$ -
IA - 4	Interior Drop Connection (MH-6)	2	ea.	\$ -	\$ -
IA - 5	Doghouse Manhole	20	v.f.	\$ -	\$ -
IA - 6	Precast concrete riser ring	5	v.f.	\$ -	\$ -
IA - 7	Manhole Frame and Cover, Standard (FC-1)	20	ea.	\$ -	\$ -
	Manhole Frame and Cover, Watertight (FC-2)	20	ea.	\$ -	\$ -
IA - 8	4" x 4" PVC Wye	5	ea.	\$ -	\$ -
	6" x 4" PVC Wye	5	ea.	\$ -	\$ -
	8" x 6" PVC Wye	5	ea.	\$ -	\$ -
	6" X 4" D.I. Wye (Protecto 401 lining)	2	ea.	\$ -	\$ -
	8" X 4" D.I. Wye (Protecto 401 lining)	10	ea.	\$ -	\$ -
	8" X 6" D.I. Wye (Protecto 401 lining)	5	ea.	\$ -	\$ -
	12" X 4" D.I. Wye (Protecto 401 lining)	2	ea.	\$ -	\$ -
	12" X 6" D.I. Wye (Protecto 401 lining)	10	ea.	\$ -	\$ -
IA - 9	4" PVC Cleanout assembly (CO-2)	15	ea.	\$ -	\$ -
	4" PVC Double cleanout assembly (CO-3)	5	ea.	\$ -	\$ -
	6" PVC Cleanout assembly (CO-2)	5	ea.	\$ -	\$ -
	8" PVC Terminal Cleanout assembly (CO-1)	5	ea.	\$ -	\$ -

IA - 10	4" PVC (Cleanout vertical pipe where > 6' depth)	50	l.f.	\$ -	\$ -
	6" PVC (Cleanout vertical pipe where > 6' depth)	50	l.f.	\$ -	\$ -
IA - 11	8" PVC vertical pipe for terminal cleanout (> 6' depth)	50	l.f.	\$ -	\$ -
IA - 12	Standard cleanout cover	10	ea.	\$ -	\$ -
	Traffic bearing cleanout cover	10	ea.	\$ -	\$ -
IA - 13	Service saddle on existing line (4" and 6" tap)	5	ea.	\$ -	\$ -
IA - 14	Machine Coring Manholes (Up to 12")	10	ea.	\$ -	\$ -
IA - 15	4-inch "Harco" type coupling	10	ea.	\$ -	\$ -
	6-inch "Harco" type coupling	10	ea.	\$ -	\$ -
	8-inch "Harco" type coupling	10	ea.	\$ -	\$ -
	10-inch "Harco" type coupling	10	ea.	\$ -	\$ -
	12-inch "Harco" type coupling	10	ea.	\$ -	\$ -
IA - 16	Frame-Chimney Seals	10	ea.	\$ -	\$ -
IA - 17	2" Sewer Air Release Valve (< 100 psi, AR-3)	5	ea.	\$ -	\$ -
	2" Sewer Air Release Valve (> 100 psi, AR-4)	5	ea.	\$ -	\$ -
IA - 18	1-1/4" Force Main Connection (GP-2)	5	ea.	\$ -	\$ -
	2" Force Main Connection (GP-2)	2	ea.	\$ -	\$ -
		Total Section I Division A		\$ -	

Section I - Division B: Waterline Construction					
Water Lines - All materials shall meet requirements of applicable sections of the Bedford Regional Water Authority Master Specifications.					
Item No.	Description	Quantity	Unit	Unit Price	Total
IB - 1	2" Water pipe (PVC)	300	l.f.	\$ -	\$ -
	3" Water pipe (PVC)	500	l.f.	\$ -	\$ -
	4" Water pipe (PVC)	2700	l.f.	\$ -	\$ -
	6" Water pipe (PVC)	300	l.f.	\$ -	\$ -
	8" Water pipe(PVC)	3,000	l.f.	\$ -	\$ -
	10" Water pipe (PVC)	100	l.f.	\$ -	\$ -
	12" Water pipe (PVC)	100	l.f.	\$ -	\$ -
	2" Water pipe (DIP)	50	l.f.	\$ -	\$ -
	4" Water pipe (DIP)	50	l.f.	\$ -	\$ -
	6" Water pipe (DIP)	300	l.f.	\$ -	\$ -
	8" Water pipe (DIP)	200	l.f.	\$ -	\$ -
	10" Water pipe (DIP)	50	l.f.	\$ -	\$ -
	12" Water pipe (DIP)	50	l.f.	\$ -	\$ -
	4" Water pipe (R.J.)	50	l.f.	\$ -	\$ -
	6" Water pipe (R.J.)	50	l.f.	\$ -	\$ -
	8" Water pipe (R.J.)	50	l.f.	\$ -	\$ -
	10" Water pipe (R.J.)	50	l.f.	\$ -	\$ -
	12" Water pipe (R.J.)	50	l.f.	\$ -	\$ -
IB - 2	Paved Entrance Crossing (free bore; carrier pipe 6" or less)	140	l.f.	\$ -	\$ -
IB - 3	Fittings (Accessories included)	7,000	lbs.	\$ -	\$ -
IB - 4	2" valves & boxes	2	ea.	\$ -	\$ -
	3" valves & boxes	1	ea.	\$ -	\$ -
	4" valves & boxes	3	ea.	\$ -	\$ -
	6" valves & boxes	10	ea.	\$ -	\$ -
	8" valves & boxes	10	ea.	\$ -	\$ -
	10" valves & boxes	2	ea.	\$ -	\$ -
	12" valves & boxes	2	ea.	\$ -	\$ -
	2" Insert Valve Installation	1	ea.	\$ -	\$ -
	4" Insert Valve Installation	2	ea.	\$ -	\$ -
	6" Insert Valve Installation	2	ea.	\$ -	\$ -
	8" Insert Valve Installation	2	ea.	\$ -	\$ -
	10" Insert Valve Installation	1	ea.	\$ -	\$ -
IB - 5	4" Wet tap	3	ea.	\$ -	\$ -
	6" Wet tap	5	ea.	\$ -	\$ -
	8" Wet tap	1	ea.	\$ -	\$ -
	10" Wet tap	1	ea.	\$ -	\$ -
	12" Wet tap	1	ea.	\$ -	\$ -
IB - 6	1" Water services (open cut)	1,500	l.f.	\$ -	\$ -
	2" Water services (open cut)	100	l.f.	\$ -	\$ -
IB - 7	1" Water services (by jacking or boring, casing separate)	100	l.f.	\$ -	\$ -
	2" Water services (by jacking or boring, casing separate)	25	l.f.	\$ -	\$ -
IB - 8	Tie rods (3/4")	500	l.f.	\$ -	\$ -
IB - 9	Mega- Lugs / mechanical restraints	500	lbs.	\$ -	\$ -

IB - 10	Fire hydrants (high & low pressure, 4' standard bury)	7	ea.	\$ -	\$ -
	Fire hydrant barrel extension for depths greater than 4' (high & low pressure)	10	v.f.	\$ -	\$ -
IB - 11	5/8"x3/4", 3/4" Meter Boxes and Meter Assemblies (new construction, SC-1)	20	ea.	\$ -	\$ -
	5/8"x3/4", 3/4" Meter Boxes and Double Meter Assemblies (new construction, SC-3)	30	ea.	\$ -	\$ -
	1" Meter Boxes and Meter Assemblies (new construction - SC-1)	2	ea.	\$ -	\$ -
	2" Meter Boxes and Meter Assemblies (new construction, M-1)	5	ea.	\$ -	\$ -
IB - 12	5/8"x3/4", 3/4" Meter Boxes and Meter Assemblies (replacement of existing connection, SC-1)	20	ea.	\$ -	\$ -
	5/8"x3/4", 3/4" Meter Boxes and Double Meter Assemblies (replacement of existing connection, SC-3)	30	ea.	\$ -	\$ -
	1" Meter Boxes and Meter Assemblies (replacement of existing connection - SC-1)	2	ea.	\$ -	\$ -
	2" Meter Boxes and Meter Assemblies (replacement of existing connection, M-1)	5	ea.	\$ -	\$ -
IB - 13	Comb. 1" Air Release Valve (AR-2)	5	ea.	\$ -	\$ -
	Comb. 2" Air Release Valve (AR-1)	5	ea.	\$ -	\$ -
IB - 14	2" Blow-off Valve (BC-1)	5	ea.	\$ -	\$ -
IB - 15	2" Tie-in	5	ea.	\$ -	\$ -
	4" Tie-in	2	ea.	\$ -	\$ -
	6" Tie-in	1	ea.	\$ -	\$ -
IB - 16	2" Waterline abandonment (cut and cap)	5	ea.	\$ -	\$ -
	4" Waterline abandonment (cut and cap)	2	ea.	\$ -	\$ -
	6" Waterline abandonment (cut and cap)	2	ea.	\$ -	\$ -
IB - 17	1" - 2" Water Service Tapping Saddle (Up to 6")	2	ea.	\$ -	\$ -
	1" - 2" Water Service Tapping Saddle (6 " to 8 ")	2	ea.	\$ -	\$ -
	1" - 2" Water Service Tapping Saddle (8" to 12")	2	ea.	\$ -	\$ -
	Water Service Tapping Saddle (16")				
	1" x 16"	5	ea.	\$ -	\$ -
	2" x 16"	1	ea.	\$ -	\$ -
	Water Service Tapping Saddle (18")				
	1" x 18"	5	ea.	\$ -	\$ -
	2" x 18"	1	ea.	\$ -	\$ -
	Water Service Tapping Saddle (20")				
	1" x 20"	1	ea.	\$ -	\$ -
	2" x 20"	1	ea.	\$ -	\$ -
	1" Service connections to Asbestos Cement Lines	5	ea.	\$ -	\$ -
IB - 18	Bulkhead Anchor (CA-4)	5	ea.	\$ -	\$ -
		Total Section I Division B		\$ -	

Section I - Division C: Trenching, Backfilling & Compaction of Utilities					
Item No.	Description	Quantity	Unit	Unit Price	Total
IC - 1	Pavement cut and removal, Asphalt Concrete (for pipe installation)	100	s.y.	\$ -	\$ -
IC - 2	Pavement cut and removal, Unreinforced Concrete (for pipe installation)	50	s.y.	\$ -	\$ -
IC - 3	Pavement cut and removal, Reinforced concrete (for pipe installation)	10	s.y.	\$ -	\$ -
IC - 4	Extra depth excavation (Std. depth to 16 feet)	1,000	c.y.	\$ -	\$ -
	Extra depth excavation (greater than 16 feet)	100	c.y.	\$ -	\$ -
IC - 5	Foundation Stone, VDOT #1	50	T	\$ -	\$ -
IC - 6	Compacted Aggregate Backfill	100	T	\$ -	\$ -
IC - 7	Course Granular Aggregate Backfill	100	T	\$ -	\$ -
IC - 8	Trench (Select) Borrow Backfill	500	c.y.	\$ -	\$ -
IC - 9	Rock Excavation (trench rock)	10	c.y.	\$ -	\$ -
IC - 10	Maintenance Stone for pipe installation 6" compacted layer, VDOT 21A	500	s.y.	\$ -	\$ -
IC - 11	Aggregate Base Stone for Paved Driveway Repair (6 in. layer)	200	s.y.	\$ -	\$ -
IC - 12	Aggregate Base Stone for Gravel Driveway Repair (6 in. layer)	200	s.y.	\$ -	\$ -
IC - 13	Railroad Ballast	25	T	\$ -	\$ -
IC - 14	Stone dust (spread as directed)	50	T	\$ -	\$ -
		Total Section I Division C		\$	-

Section I - Division D: Earthwork					
Item No.	Description	Quantity	Unit	Unit Price	Total
ID - 1	Offsite Borrow	500	c.y.	\$ -	\$ -
ID - 2	Regular Excavation	300	c.y.	\$ -	\$ -
ID - 3	Rock Excavation	10	c.y.	\$ -	\$ -
ID - 4	Undercut Excavation	25	c.y.	\$ -	\$ -
ID - 5	Pavement cut and removal	50	s.y.	\$ -	\$ -
ID - 6	Concrete cut and removal	50	s.y.	\$ -	\$ -
ID - 7	Replacement of concrete curb & gutter DOT CG-6 type	100	l.f.	\$ -	\$ -
ID - 8	Replacement of straight curb with DOT Standard CG-2 type	50	l.f.	\$ -	\$ -
ID - 9	Replacement of VDOT standard straight curb with footer	50	l.f.	\$ -	\$ -
ID - 10	Replacement of Concrete driveways, entrances, and sidewalks, 7" thick	50	s.y.	\$ -	\$ -
ID - 11	Replacement of Concrete Sidewalk, 4" thick	100	s.y.	\$ -	\$ -
ID - 12	Facedown Concrete Curb	100	l.f.	\$ -	\$ -
ID - 13	Replacement of Concrete Handicap Ramp	50	s.y.	\$ -	\$ -
ID - 14	Unformed Concrete	10	c.y.	\$ -	\$ -
ID - 15	Formed Concrete	10	c.y.	\$ -	\$ -
ID - 16	Reinforcing Wire Mesh (6"X6", 10 GA)	10	ea.	\$ -	\$ -
ID - 17	Reinforcing Steel Bars	100	lbs.	\$ -	\$ -
		Total Section I Division D		\$	-

Section I - Division E: Miscellaneous to All Sections					
Item No.	Description	Quantity	Unit	Unit Price	Total
IE - 1	Clearing and Grubbing, Lightly Wooded Areas	0.5	A	\$ -	\$ -
IE - 2	Clearing and Grubbing, Heavily Wooded Areas	0.5	A	\$ -	\$ -
IE - 3	Flowable fill	100	c.y.	\$ -	\$ -
IE - 4	Seeding and fine grading for areas < 500 s.y.	1,000	s.y.	\$ -	\$ -
	Seeding and fine grading > 500 s.y.	2,000	s.y.	\$ -	\$ -
IE - 5	Straw bale barrier	100	l.f.	\$ -	\$ -
IE - 6	Silt fence barrier	500	l.f.	\$ -	\$ -
IE - 7	Gravel Outfall Structures	25	T	\$ -	\$ -
IE - 8	Temporary Diversion Dikes	100	l.f.	\$ -	\$ -
IE - 9	Construction Entrance	100	T	\$ -	\$ -
IE - 10	Dry rip-rap Class I	50	T	\$ -	\$ -
	Grouted rip-rap Class I	50	T	\$ -	\$ -
	Dry rip-rap Class II	50	T	\$ -	\$ -
	Grouted rip-rap Class II	50	T	\$ -	\$ -
	Dry rip-rap, graded, Class A1	50	T	\$ -	\$ -
	Grouted rip-rap, graded, Class A1	50	T	\$ -	\$ -
	Grouted rip-rap, graded, Class A1	50	T	\$ -	\$ -
IE - 11	VDOT EC-2 matting	500	s.y.	\$ -	\$ -
IE - 12	Tree Removal (6" to 15" in diameter)	10	ea.	\$ -	\$ -
IE - 13	Tree Removal (over 15" in diameter)	10	ea.	\$ -	\$ -
IE - 14	Temporary Seeding (Fall/Winter Mix)	1,000	s.y.	\$ -	\$ -
IE - 16	Drop inlet silt trap	2	ea.	\$ -	\$ -
IE - 17	Service connections to Asbestos Cement Service Lines	5	ea.	\$ -	\$ -
		Total Section I Division E		\$	-

Total Base Bid for Section I – Utility Construction	
Total Division A	\$ -
Total Division B	\$ -
Total Division C	\$ -
Total Division D	\$ -
Total Division E	\$ -
Total Section I	\$ -

Section II - Division A: Specialized Utility Construction - Encasement Pipe					
Steel casing pipe materials used under highways and railroads shall meet the requirements of applicable agency and sections of the Bedford Regional Water Authority's Master Specifications.					
Item No.	Description	Quantity	Unit	Unit Price	Total
IIA - 1	2" Casing for Water or Pressure Sewer (Bored)	100	l.f.	\$ -	\$ -
	4" Steel Casing for Water or Pressure Sewer (Bored)	600	l.f.	\$ -	\$ -
	8" Steel Casing for Water or Pressure Sewer (Bored)	25	l.f.	\$ -	\$ -
	12" Steel Casing for Water or Pressure Sewer (Bored)	25	l.f.	\$ -	\$ -
	16" to 20" Steel Casing for Water/Pressure Sewer (Bored)	25	l.f.	\$ -	\$ -
	18" to 22" Steel Casing for Water/Pressure Sewer (Bored)	25	l.f.	\$ -	\$ -
	20" to 24" Steel Casing for Water/Pressure Sewer (Bored)	25	l.f.	\$ -	\$ -
	30" to 36" Steel Casing for Water/Pressure Sewer (Bored)	25	l.f.	\$ -	\$ -
	8" Steel Casing for Gravity Sewer (Bored)	50	l.f.	\$ -	\$ -
	12" Steel Casing for Gravity Sewer (Bored)	25	l.f.	\$ -	\$ -
	16" to 20" Steel Casing for Gravity Sewer (Bored)	25	l.f.	\$ -	\$ -
	18" to 22" Steel Casing for Gravity Sewer (Bored)	25	l.f.	\$ -	\$ -
	20" to 24" Steel Casing for Gravity Sewer (Bored)	25	l.f.	\$ -	\$ -
	30" to 36" Steel Casing for Gravity Sewer (Bored)	25	l.f.	\$ -	\$ -
IIA - 2	2" Casing for Water or Pressure Sewer (Open Cut)	100	l.f.	\$ -	\$ -
	4" Steel Casing for Water or Pressure Sewer (Open Cut)	600	l.f.	\$ -	\$ -
	8" Steel Casing for Water or Pressure Sewer (Open Cut)	25	l.f.	\$ -	\$ -
	12" Steel Casing for Water or Pressure Sewer (Open Cut)	25	l.f.	\$ -	\$ -
	16" to 20" Steel Casing for Water/Pressure Sewer (Open Cut)	25	l.f.	\$ -	\$ -
	18" to 22" Steel Casing for Water/Pressure Sewer (Open Cut)	25	l.f.	\$ -	\$ -
	20" to 24" Steel Casing for Water/Pressure Sewer (Open Cut)	25	l.f.	\$ -	\$ -
	30" to 36" Steel Casing for Water/Pressure Sewer (Open Cut)	25	l.f.	\$ -	\$ -
	8" Steel Casing for Gravity Sewer (Open Cut)	50	l.f.	\$ -	\$ -
	12" Steel Casing for Gravity Sewer (Open Cut)	25	l.f.	\$ -	\$ -
	16" to 20" Steel Casing for Gravity Sewer (Open Cut)	25	l.f.	\$ -	\$ -
	18" to 22" Steel Casing for Gravity Sewer (Open Cut)	25	l.f.	\$ -	\$ -
	20" to 24" Steel Casing for Gravity Sewer (Open Cut)	25	l.f.	\$ -	\$ -
	30" to 36" Steel Casing for Gravity Sewer (Open Cut)	25	l.f.	\$ -	\$ -
IIA - 3	Bore Set-up for Water or Pressure Sewer	25	ea.	\$ -	\$ -
	Bore Set-up for Gravity Sewer	25	ea.	\$ -	\$ -
		Total Section II Division A		\$	-

Section II - Division B: Specialized Utilities Construction - Water Line and Sewer Line Construction and Rehabilitation					
Item No.	Description	Quantity	Unit	Unit Price	Total
IIB - 1	Directional Drilling for 2" carrier and casing 0 - 50ft	50	l.f.	\$ -	\$ -
	50 - 100ft	100	l.f.	\$ -	\$ -
	100 - 200ft	200	l.f.	\$ -	\$ -
	Directional Drilling for 4" carrier and casing 0 - 50ft	50	l.f.	\$ -	\$ -
	50 - 100ft	100	l.f.	\$ -	\$ -
	100 - 200ft	200	l.f.	\$ -	\$ -
	Directional Drilling for 6" carrier and casing 0 - 50ft	50	l.f.	\$ -	\$ -
	50 - 100ft	100	l.f.	\$ -	\$ -
	100 - 200ft	200	l.f.	\$ -	\$ -
	Directional Drilling for 8" carrier and casing 0 - 50ft	50	l.f.	\$ -	\$ -
	50 - 100ft	100	l.f.	\$ -	\$ -
	100 - 200ft	200	l.f.	\$ -	\$ -
	Directional Drilling for 10" carrier and casing 0 - 50ft	50	l.f.	\$ -	\$ -
	50 - 100ft	100	l.f.	\$ -	\$ -
	100 - 200ft	200	l.f.	\$ -	\$ -
IIB - 2	Rehab of exist sewer using 8-inch flexible liner	200	l.f.	\$ -	\$ -
	Rehab of exist sewer using 10-inch flexible liner	100	l.f.	\$ -	\$ -
	Rehab of exist sewer using 12-inch flexible liner	100	l.f.	\$ -	\$ -
IIB - 3	Interior Manhole Sealant (Rehabilitation)	50	v.f.	\$ -	\$ -
IIB - 4	Asbestos Cement Pipe Removal (12 l.f. or less)	12	l.f.	\$ -	\$ -
	Asbestos Cement Pipe Removal (Greater than 12 l.f.)	120	l.f.	\$ -	\$ -
IIB - 5	Manhole abandonment (to include inlets)	10	ea.	\$ -	\$ -
Total Section II Division B				\$	-

Total Base Bid for Section II – Specialized Utility Construction	
Total Division A	\$ -
Total Division B	\$ -
Total Section II	\$ -

Section III: Extra Work

Extra Work – In accordance with Document 00 11 13 - Instruction to Bidders concerning extra work, the following unit prices will be used to complete monies owed the contractor as described by Payment for “Extra Work” by unit price method. Equipment prices are to include operator, expenses, overhead, special attachments, insurance, taxes and profit. The unit price for manpower shall include all hand tools and portable power tools necessary for the work being performed. Designation of Model in parenthesis represents minimum size required, other models equal to or greater may be substituted at no increase in price.

Item No.	Description	Quantity	Unit	Unit Price	Total
III – 1	Single axle dump truck	150	hrs.	\$ -	\$ -
III – 2	Tandem axle dump truck	200	hrs.	\$ -	\$ -
III – 3	Track loader (Model cat 955)	100	hrs.	\$ -	\$ -
III – 4	Rubber tired loader (Model Cat 930)	150	hrs.	\$ -	\$ -
III – 5	Backhoe (wheel type model Case 580)	200	hrs.	\$ -	\$ -
III – 6	Backhoe (crawler type model 225)	150	hrs.	\$ -	\$ -
III – 7	Farm tractor (35 H.P.)	10	hrs.	\$ -	\$ -
III – 8	Concrete Hoe Ram (7,500lbs)	25	hrs.	\$ -	\$ -
III – 9	Vacuum Excavator	10	hrs.	\$ -	\$ -
III – 10	Bobcat Excavator	50	hrs.	\$ -	\$ -
III – 11	Power broom	100	hrs.	\$ -	\$ -
III – 12	Asphalt saw	20	hrs.	\$ -	\$ -
III – 13	Flashing Directional arrow	50	hrs.	\$ -	\$ -
III – 14	Air Compressor (including attachments)	20	hrs.	\$ -	\$ -
III – 15	Man power (Labor & Supervision)	500	hrs.	\$ -	\$ -
III – 16	Traffic Cushion Truck	10	hrs.	\$ -	\$ -
III – 17	Longitudinal Channelizing Devices, i.e. Lighted Barrels	20	Ea./day	\$ -	\$ -
III – 18	Longitudinal Channelizing Devices, i.e. Barrels	20	Ea./day	\$ -	\$ -
III – 19	Type I Barricade	10	Ea./day	\$ -	\$ -
III – 20	Type III Barricade	10	Ea./day	\$ -	\$ -
III – 21	Pilot truck	50	hrs.	\$ -	\$ -
III – 22	Flaggers	10	hrs.	\$ -	\$ -
III – 23	Portable Light Tower	10	hrs.	\$ -	\$ -
Total Section III				\$	-

Section IV: On-call Emergency and After-Hours Work

On-Call Emergency and After Hours Work – In accordance with Document 00 11 13 - Instruction to Bidders concerning extra work, the following unit prices will be used to complete monies owed the contractor as described by Payment for “Extra Work” by unit price method. The purpose of this section is to have line item costs associated with Emergency On-Call and After Working hours.

Item No.	Description	Quantity	Unit	Unit Price	Total
IV – 1	Single axle dump truck	100	hrs.	\$ -	\$ -
IV – 2	Tandem axle dump truck	100	hrs.	\$ -	\$ -
IV – 3	Track loader (Model cat 955)	50	hrs.	\$ -	\$ -
IV – 4	Rubber tired loader (Model Cat 930)	50	hrs.	\$ -	\$ -
IV – 5	Backhoe (wheel type model Case 580)	100	hrs.	\$ -	\$ -
IV – 6	Backhoe (crawler type model 225)	100	hrs.	\$ -	\$ -
IV – 7	Farm tractor (35 H.P.)	10	hrs.	\$ -	\$ -
IV – 8	Concrete Hoe Ram (7,500lbs)	25	hrs.	\$ -	\$ -
IV – 9	Vacuum Excavator	10	hrs.	\$ -	\$ -
IV – 10	Bobcat Excavator	50	hrs.	\$ -	\$ -
IV – 11	Power broom	50	hrs.	\$ -	\$ -
IV – 12	Asphalt saw	10	hrs.	\$ -	\$ -
IV – 13	Flashing Directional arrow	25	hrs.	\$ -	\$ -
IV – 14	Air Compressor (including attachments)	20	hrs.	\$ -	\$ -
IV – 15	Man power (Labor & Supervision)	500	hrs.	\$ -	\$ -
IV – 16	Traffic Cushion Truck	10	hrs.	\$ -	\$ -
IV – 17	Longitudinal Channelizing Devices, i.e. Lighted Barrels	20	Ea./day	\$ -	\$ -
IV – 18	Longitudinal Channelizing Devices, i.e. Barrels	20	Ea./day	\$ -	\$ -
IV – 19	Type I Barricade	10	Ea./day	\$ -	\$ -
IV – 20	Type III Barricade	10	Ea./day	\$ -	\$ -
IV – 21	Pilot truck	25	hrs.	\$ -	\$ -
IV – 22	Flaggers	10	hrs.	\$ -	\$ -
IV – 23	Portable Light Tower	10	hrs.	\$ -	\$ -
IV – 24	After-Hour/ Emergency Mobilization	1	LS	\$ -	\$ -
IV – 25	After-Hours/ Emergency Maintenance of Traffic Setup	1	LS	\$ -	\$ -
		Total Section IV		\$	-

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

Total of Unit Price Bids = Total Bid Price for Section I \$ -

Total of Unit Price Bids = Total Bid Price for Section II \$ -

BASE BID - SECTIONS I & II	\$ -
---------------------------------------	-------------

Total of Unit Price Bids = Total Bid Price for Section III \$ -

Total of Unit Price Bids = Total Bid Price for Section IV \$ -

ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
- A. Required Bid security;
 - B. List of Proposed Subcontractors;
 - C. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
 - D. Required Contractor Qualification Statement with supporting data. (Include Contractor's License No. or Evidence of Bidder's ability to obtain a State Contractor's License and a covenant by Bidder to obtain said license within the time for acceptance of Bids.)

ARTICLE 8 – DEFINED TERMS

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

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ARTICLE 9 – BID SUBMITTAL

9.01 *This Bid submitted by:*If BIDDER is: An Individual

Name (typed or printed): _____

By: _____ (SEAL)
(Individual's signature)

Doing business as: _____

A Partnership

Partnership Name: _____ (SEAL)

By: _____
(Signature of general partner -- attach evidence of authority to sign)

Name (typed or printed): _____

A Corporation

Corporation Name: _____ (SEAL)

State of Incorporation: _____

Type (General Business, Professional, Service, Limited Liability): _____

By: _____
(Signature -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____ (CORPORATE SEAL)

Attest _____

Date of Authorization to do business in Virginia is ____/____/____.

A Joint Venture

Name of Joint Venture: _____

First Joint Venturer Name: _____ (SEAL)

By: _____
(Signature of first joint venture partner -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Second Joint Venturer Name: _____ (SEAL)

By: _____
(Signature of second joint venture partner -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

BIDDER's Business Address _____

Phone No. _____ Fax No. _____

SUBMITTED on _____, _____

State Contractor License No. _____

CERTIFICATION OF NONDISCRIMINATION AND DRUG-FREE WORKPLACE

By submitting their bids, all bidders certify to the Bedford Regional Water Authority that they will conform to the provisions of the Federal Civil Rights Act of 1964, as amended, as well as the Virginia Fair Employment Contracting Act of 1975, as amended, where applicable, the Virginian's With Disabilities Act, the Americans With Disabilities Act, and Section 2.2-4311 of the Virginia Public Procurement Act. In every contract over \$1,000.00, the provisions below apply:

1. During the performance of this contract, the contractor agrees as follows:
 - A. The contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by state law relating to discrimination in employment, except where there is bona fide occupational qualification reasonably necessary to the normal operation of the contractor. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
 - B. The contractor, in all solicitations or advertisements for employees placed by or on behalf of the contractor, will state that such contractor is an equal opportunity employer.
 - C. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.
2. The contractor will include the provisions of the foregoing paragraphs A, B and C in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.
3. During the performance of this contract, the contractor agrees to (i) provide a drug-free workplace for the contractor's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the contractor that the contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

For the purposes of this section, "drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a contractor in accordance with this chapter, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

Certified by: _____ (corporate seal)

Date: _____

SUBSCRIBED AND SWORN TO BEFORE ME THIS _____ DAY OF _____, 20__

NOTARY PUBLIC _____

MY COMMISSION EXPIRES _____, 20__

END OF DOCUMENT 00 41 00 – BID FORM



1723 Falling Creek Road
Bedford, VA 24523-3137
(540) 586-7679 (phone)
(540) 586-5805 (fax)
www.brwa.com

CONTRACTOR QUALIFICATION STATEMENT

THE INFORMATION SUPPLIED IN THIS DOCUMENT IS CONFIDENTIAL TO THE EXTENT PERMITTED BY LAWS AND REGULATIONS.

1. SUBMITTED BY:

Official Name of Company: _____

Company Address: _____

Contact Person: _____

Title: _____

Phone: _____

Email: _____

Anticipated Superintendent or

Key Personnel Proposed for the

Submitted Project: _____

2. SUBMITTED TO:

Bedford Regional Water Authority

3. SUBMITTED FOR:

Owner: _____

Project Name: _____

4. TYPE OF WORK:

5. AFFILIATED COMPANIES:

Name: _____

Address: _____

6. LICENSING:

Jurisdiction: _____

Type of License: _____

License Number: _____

Jurisdiction: _____

Type of License: _____

License Number: _____

7. CERTIFICATIONS:

CERTIFIED BY:

Responsible Land Disturber Permit(s): ☐ YES ☐ NO _____Other (_____): ☐ YES ☐ NO _____Other (_____): ☐ YES ☐ NO _____Other (_____): ☐ YES ☐ NO _____**8. INSURANCE INFORMATION:**

Provide a copy of your Certificate of Insurance.

9. SUBCONTRACTOR INFORMATION:

Name: _____

Address: _____

Specialty: _____

Your Experience: _____

***Include additional information as needed. ***

10. CONSTRUCTION EXPERIENCE:

List on **Schedule A** all uncompleted projects currently over \$30,000 and under contract (If Joint Venture list each participant's projects separately).

List on **Schedule B** projects completed within the last 5 Years and over \$30,000 (If Joint Venture list each participant's projects separately).

Has firm listed in Section 1 ever failed to complete a construction contract awarded to it?

☐ YES ☐ NO

If YES, attach as an Attachment details including Project Owner's contact information.

Has any Corporate Officer, Partner, Joint Venture participant or Proprietor ever failed to complete a construction contract awarded to them in their name or when acting as a principal of another entity?

☐ YES ☐ NO

If YES, attach as an Attachment details including Project Owner's contact information.

Are there any judgments, claims, disputes or litigation pending or outstanding involving the firm listed in Section 1 or any of its officers (or any of its partners if a partnership or any of the individual entities if a joint venture)?

☐ YES ☐ NO

Are you on any list of debarred contractors maintained by the U.S. Department of Labor, the U.S. Department of Housing and Urban Development or the Virginia Department of Transportation?

☐ YES ☐ NO

11. EQUIPMENT:

Provide a list of all major pieces of equipment available for use on Owner's project(s), to include the year, make, model, purchase date, condition, and acquired value.

12. EMPLOYEE INFORMATION:

Number of current full-time employees: _____

Number employees at highest level in past twelve months: _____

13. BONDING INFORMATION (only applicable to CIP projects):

Provide proof of bonding capacity, to include single and aggregate limits.

14. FINANCIAL INFORMATION (Only applicable to CIP projects)

Financial Institution: _____

Address: _____

Account Manager: _____

Phone: _____

INCLUDE AS AN ATTACHMENT AN AUDITED BALANCE SHEET FOR EACH OF THE LAST 3 YEARS**12. SAFETY PROGRAM:**

Do you have a current safety program?

☐ YES ☐ NO

Name of Contractor's Safety Officer: _____

Include the following attachments (only applicable to CIP projects):

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) OSHA No. 500- Log & Summary of Occupational Injuries & Illnesses for the past 5 years.

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) list of all OSHA Citations & Notifications of Penalty (monetary or other) received within the last 5 years (indicate disposition as applicable) - IF NONE SO STATE.

Provide as an Attachment Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) list of all safety citations or violations under any state all received within the last 5 years (indicate disposition as applicable) - IF NONE SO STATE.

Provide the following for the firm listed in Section V (and for each proposed Subcontractor furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) the following (attach additional sheets as necessary):

Workers' compensation Experience Modification Rate (EMR) for the last 5 years:

YEAR	_____	EMR	_____
YEAR	_____	EMR	_____
YEAR	_____	EMR	_____
YEAR	_____	EMR	_____
YEAR	_____	EMR	_____

Total Recordable Frequency Rate (TRFR) for the last 5 years:

YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____
YEAR	_____	TRFR	_____

Total number of man-hours worked for the last 5 Years:

YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____
YEAR	_____	TOTAL NUMBER OF MAN-HOURS	_____

Provide Contractor's (and Contractor's proposed Subcontractors and Suppliers furnishing or performing Work having a value in excess of 10 percent of the total amount of the Bid) Days Away From Work, Days of Restricted Work Activity or Job Transfer (DART) incidence rate for the particular industry or type of Work to be performed by Contractor and each of Contractor's proposed Subcontractors and Suppliers) for the last 5 years:

YEAR	_____	DART	_____
YEAR	_____	DART	_____
YEAR	_____	DART	_____
YEAR	_____	DART	_____
YEAR	_____	DART	_____

REQUIRED ATTACHMENTS

1. Schedule A (Current Experience).
2. Schedule B (Previous Experience).
3. Schedule C (Major Equipment).
4. Certificate of Insurance.
5. Bond Information.
6. Resumes of officers and key individuals (including Safety Officer) of firm named in Section 1.
7. Additional items as pertinent.

SCHEDULE A**CURRENT EXPERIENCE (Uncompleted Projects)**

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work (Include Pipe Sizes & Lengths)	Project Superintendent	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

(Add Additional Sheets as Needed)

SCHEDULE B**PREVIOUS EXPERIENCE (Include Projects Completed within last 5 years)**

Project Name	Owner's Contact Person	Design Engineer	Contract Date	Type of Work	Status	Cost of Work
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				
	Name: Address: Telephone:	Name: Company: Telephone:				

(Add Additional Sheets as Needed)



NOTICE OF AWARD

[Click **here** and type Date for this letter]

[Click **here** and type recipient's Company]

[Click **here** and type recipient's Name]

[Click **here** and type recipient's Street Address]

[Click **here** and type recipient's City, State, Zip]

Re: **Notice of Award: 2024 Annual Term Contract for Water and Sewer Construction Services**

Dear Mr. /Mrs. [Click **here** and type the recipient's last name]:

Congratulations! You are the Successful Bidder and have been awarded the **Annual Term Contract for Water and Sewer Construction Services** by the Bedford Regional Water Authority (BRWA).

The BRWA has accepted your Bid dated _____ for the above Contract. The work for this term contract includes normal construction projects, such as the installation and/or repair of sanitary sewer and water lines with associated appurtenances, other infrastructure related projects, miscellaneous concrete work, grading and construction estimating. The Contract Prices of the awarded Contract is based on the unit pricing submitted on the enclosed Bid Form. The term of the contract shall be for a twelve (12) month period, and the unit prices shall be valid for the term of the contract. An option for up to two additional twelve (12) month extensions may be considered if both parties agree, and there are no significant changes to the conditions of the contract.

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

1. Deliver three copies of the Contract Agreement, fully executed by Bidder, to the BRWA.
2. Deliver the Contract security and insurance documentation as specified in the Instructions to Bidders and General Conditions.
3. Other conditions precedent (if any):

Failure to comply with these conditions within the time specified will entitle the BRWA to consider you in default, annul this Notice of Award, and declare your Bid security forfeited. Within ten days after you comply with the above conditions, the BRWA will return to you one fully executed copy of the Contract Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Thank you for submitting your bid. The BRWA looks forward to working with you throughout the duration of this contract.

Sincerely,

[Click **here** and type YOUR Name]

[Click **here** and type YOUR Title]

CC: [Click **here** and type the name of any **carbon copy recipients**]

Enclosure

DOCUMENT 00 52 13 – AGREEMENT BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT

THIS AGREEMENT is by and between Bedford Regional Water Authority (“Owner”) and _____ (“Contractor”). Owner and Contractor hereby agree as follows:

ARTICLE 1 - WORK

- 1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows: *The Annual Construction Services consists of work related to construct, repairs, and/or replace new and existing water lines and sanitary sewer lines, and all associated appurtenances as identified by the Bedford Regional Water Authority. All work shall be performed on an as needed basis with compensation based on unit prices bids. The contractor shall submit unit priced bids for each item on the Bid Form for all labor and equipment and needed to perform projects.*

The Authority will request a written proposal from the Contractor for each individual project. The contractor will provide a written proposal including a construction schedule and a value of quantities based on the unit priced bids for each individual project.

ARTICLE 2 - THE PROJECT

- 2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows: 2024 Annual Term Contract for Water and Sewer Construction Services.

ARTICLE 3 - ENGINEER

- 3.01 The Project has been designed by Bedford Regional Water Authority and/or their consultants.
- 3.02 Bedford Regional Water Authority (Owner/ Authority) hereinafter called Engineer will act as Owner’s representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 - CONTRACT TIMES

4.01 *Time of the Essence*

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

4.02 *Contract Times*

- A. The Contract Period is for one (1) 12-month period from the date of Effective Date of Contract with the Authority’s approval with an option by the Authority to renew this Contract on an annual basis up to, but not to exceed two (2) additional 12 month periods. Unless terminated by the Authority prior to the end of any 12-month term, the Contract shall be automatically renewed on the annual anniversary date of the Authority’s execution of this Agreement for the next succeeding 12-month term with the condition that the Authority’s obligation to pay under this Agreement for each year is contingent upon the Authority in its good faith judgement having sufficient funds to make and annual appropriation for the Services to be provided under this Agreement. The Agreement shall continue in full force and effect from the date first written above until terminated in accordance with Article 16 in the General Conditions or until the Agreement automatically expired three (3) years after the Authority approval. The above time periods may be extended to complete Services being rendered under a specific task that has already been identified in a Services Authorization issued prior to the expiration of the Agreement.
- B. The Work will be substantially completed within _____ days after the date when the Contract Times commence to run as provided in Paragraph 4.01 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions within _____ days after the date when the Contract Times commence to run.

4.03 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified

in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Substantial Completion: Contractor shall pay Owner \$500 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.
 2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$300 for each day that expires after such time until the Work is completed and ready for final payment.
 3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.
- B. Provided, that the contractor shall not be charged with liquidated damages or any excess cost when the delay in completion of the work is due:
1. To any preference, priority or allocation order duly issued by the Government;
 2. To unforeseeable cause beyond the control and without the fault or negligence of the contractor, including but not restricted to, acts of God or of the public enemy, acts of the owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unseasonably severe weather; and
 3. To any delays of subcontractors or suppliers occasioned by any of the causes specified above;
- C. Provide, further, that the contractor shall, within ten (10) days from the beginning of such delay, unless the owner shall grant a further period of time prior to the date of final settlement of the contract, notify the owner in writing of the cause of the delay, who shall ascertain the facts and extent of the delay and notify the contractor within a reasonable time of his decision in the matter.

ARTICLE 5 - CONTRACT PRICE

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

- A. For all Unit Price Work, an amount equal to the sum of the extended prices (established for each separately identified item of Unit Price Work by multiplying the unit price times the actual quantity of that item): Refer to Document 00 41 00- Bid Form.

The extended prices for Unit Price Work set forth as of the Effective Date of the Contract are based on estimated quantities. As provided in Paragraph 13.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer.

ARTICLE 6 - PAYMENT PROCEDURES

6.01 Submittal and Processing of Payments

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

6.02 Progress Payments; Retainage

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the 1st day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract
 - a. 95 percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and
 - b. 95 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
- B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to 95 percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less such amounts of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 Final Payment

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

ARTICLE 7 - INTEREST

7.01 All amounts not paid when due shall bear interest at the maximum rate allowed by law at the place of the project.

ARTICLE 8 - CONTRACTOR'S REPRESENTATIONS

8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:

- A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
- B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
- E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.
- F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
- G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
- H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

EJCDC® C-520, Agreement Between Owner and Contractor for Construction Contract (Stipulated Price).
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and American Society of Civil Engineers. All rights reserved.

- I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 - CONTRACT DOCUMENTS

9.01 Contents

- A. The Contract Documents consist of the following:
 - 1. This Agreement (pages 1 to 6, inclusive).
 - 2. Performance bond
 - 3. Payment bond
 - 4. Notice of Award
 - 5. General Conditions (pages 1 to 62, inclusive).
 - 6. Supplementary Conditions
 - 7. Specifications bearing the title Bedford Regional Water Authority Master Specifications and consisting Sections and Appendices, as listed in table of contents thereof.
 - 8. Drawings (not attached but incorporated by reference)
 - 9. Addenda (numbers to , inclusive).
 - 10. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor's Bid (pages to , inclusive).
 - 11. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.
 - d. Field Orders.
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 10 - MISCELLANEOUS

10.01 Terms

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

10.02 Assignment of Contract

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

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and American Society of Civil Engineers. All rights reserved.

10.03 Successors and Assigns

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

10.04 Severability

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

10.05 Contractor's Certifications

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:
1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process or in the Contract execution;
 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and
 4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

10.06 Other Provisions

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

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

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

OWNER:

CONTRACTOR:

Bedford Regional Water Authority

By: _____

By: _____

Title: _____

Title: _____

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: _____

Attest: _____

Title: _____

Title: _____

Address for giving notices:

Address for giving notices:

1723 Falling Creek Road

Bedford, Virginia 24523

License No.: _____
(where applicable)

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)

NOTE TO USER: Use in those states or other jurisdictions where applicable or required.

END OF DOCUMENT 00 52 13 - AGREEMENT
BETWEEN OWNER AND CONTRACTOR FOR CONSTRUCTION CONTRACT

NOTICE TO PROCEED

[Click **here** and type Date for this letter]

[Click **here** and type recipient's Company]

[Click **here** and type recipient's Name]

[Click **here** and type recipient's Street Address]

[Click **here** and type recipient's City, State, Zip]

Re: **Notice of Proceed under 2024 Annual Term Contract for Water and Sewer Construction Services: (CIP Project Number & Name)**

Dear Mr. /Mrs. [Click **here** and type the recipient's last name]:

You are hereby notified to commence work on (project name) as of (date) in accordance with the Contract Agreement dated (date) for the **Annual Term Contract for Water and Sewer Construction Services**.

In accordance with the Contract Agreement, the date to achieve Substantial Completion is (###) days and the date of to achieve readiness for final payment is (###) days. The date of completion of all work is therefore (Month ##, year).

A notice of Start of Construction and all required pre-construction documents must be submitted to the BRWA no later than one (1) day prior to commencement of work. No work shall be done at the Site prior to such date. Before commencing in work at the site, you must attend a pre-construction meeting scheduled by the BRWA Project Manager or Inspector.

Sincerely,

[Click **here** and type YOUR Name]

[Click **here** and type YOUR Title]

CC: [Click **here** and type the name of any **carbon copy recipients**]

DOCUMENT 00 61 13.13 - PERFORMANCE BOND



CONTRACTOR *(name and address)*:

SURETY *(name and address of principal place of business)*:

OWNER: Bedford Regional Water Authority
1723 Falling Creek Road
Bedford, Virginia 24523

CONSTRUCTION CONTRACT
Effective Date of the Agreement:
Amount:
Description *(name and location)*: 2024 Annual Term Contract for Water and Sewer Construction Services - Bedford, Virginia

BOND
Bond Number:
Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:
Amount:
Modifications to this Bond Form: ☐ one ☐ See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL	SURETY
_____ Contractor’s Name and Corporate Seal	_____ Surety’s Name and Corporate Seal
By: _____ Signature	By: _____ Signature <i>(attach power of attorney)</i>
_____ Print Name	_____ Print Name
_____ Title	_____ Title
Attest: _____ Signature	Attest: _____ Signature
_____ Title	_____ Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint ventures. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

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

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. 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:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven 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 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 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 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

EJCDC® C-610, Performance Bond

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8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction 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, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. 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 a declaration of 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 periods of limitations 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 address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for 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 Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

END OF DOCUMENT 00 61 13.13 - PERFORMANCE BOND

DOCUMENT 00 61 13.16 - PAYMENT BOND

CONTRACTOR:

SURETY *(name and address of principal place
of business):*

OWNER: Bedford Regional Water Authority
1723 Falling Creek Road
Bedford, Virginia 24523

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location):***BOND**

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract):*

Amount:

Modifications to this Bond Form: ☐ None ☐ See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL**SURETY**

Contractor's Name and Corporate Seal

Surety's Name and Corporate Seal

By: _____
Signature

By: _____
Signature *(attach power of attorney)*

Print Name_____
Print Name_____
Title_____
Title

Attest: _____
Signature

Attest: _____
Signature

Title_____
Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and 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 Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
 - 5.1 Claimants who do not have a direct contract with the Contractor,
 - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2 Pay or arrange for payment of any undisputed amounts.
 - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction 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 Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, 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.

13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

16. Definitions

16.1 **Claim:** A written statement by the Claimant including at a minimum:

1. The name of the Claimant;
2. The name of the person for whom the labor was done, or materials or equipment furnished;
3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
4. A brief description of the labor, materials, or equipment furnished;
5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
7. The total amount of previous payments received by the Claimant; and

8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2 **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 Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction 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.

16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4 **Owner Default:** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

18. Modifications to this Bond are as follows:

END OF DOCUMENT 00 61 13.16 - PAYMENT BOND


Contractor's Application for Payment No.

Application Period:		Application Date:
To Bedford Regional Water Authority (Owner):	From (Contractor):	Via (Engineer): Anderson & Associates, Inc.
Project:	Contract:	
Owner's Contract No.:	Contractor's Project No.:	Engineer's Project No.: 31210

Application For Payment
Change Order Summary

Approved Change Orders			1. ORIGINAL CONTRACT PRICE..... \$
Number	Additions	Deductions	2. Net change by Change Orders..... \$
			3. Current Contract Price (Line 1 ± 2)..... \$
			4. TOTAL COMPLETED AND STORED TO DATE (Column F total on Progress Estimates)..... \$
			5. RETAINAGE:
			a. X Work Completed..... \$
			b. X Stored Material..... \$
			c. Total Retainage (Line 5.a + Line 5.b)..... \$ 6. AMOUNT
			ELIGIBLE TO DATE (Line 4 - Line 5.c)..... \$
			7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application)..... \$
			8. AMOUNT DUE THIS APPLICATION..... \$
			9. BALANCE TO FINISH, PLUS RETAINAGE (Column G total on Progress Estimates + Line 5.c above)..... \$
TOTALS			
NET CHANGE BY			
CHANGE ORDERS			

Contractor's Certification

The undersigned Contractor certifies, to the best of its knowledge, the following:

- (1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;
- (2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all Liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such Liens, security interest, or encumbrances); and
- (3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

Contractor Signature

By:	Date:
-----	-------

Payment of: \$ _____
(Line 8 or other - attach explanation of the other amount)

is recommended by: _____
(Engineer) (Date)

Payment of: \$ _____
(Line 8 or other - attach explanation of the other amount)

is approved by: _____
(Owner) (Date)

Approved by: _____
Funding or Financing Entity (if applicable) (Date)

Contractor's Application

[illegible]

Contractor's Application

EJCDC® C-620 Contractor's Application for Payment
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Page 3 of 4

Contractor's Application

EJCDC® C-620 Contractor's Application for Payment
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Page 4 of 4

DOCUMENT 00 72 00 - GENERAL CONDITIONS

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

**STANDARD GENERAL CONDITIONS
OF THE CONSTRUCTION CONTRACT**

Prepared by



Issued and Published Jointly by



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

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

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY**1.01 Defined Terms**

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
 3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 7. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer has declined to address. A demand for money or services by a third party is not a Claim.
 11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. ("CERCLA"); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5501 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. ("RCRA"); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or

- imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.
 13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
 14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .
 15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
 16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
 17. *Cost of the Work*—See Paragraph 13.01 for definition.
 18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
 19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
 20. *Engineer*—The individual or entity named as such in the Agreement.
 21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
 22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.
 23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
 24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
 25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.
 26. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.
 27. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
 28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
 29. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
 30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.
32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or “RPR” includes any assistants or field staff of Resident Project Representative.
33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer’s review of the submittals and the performance of related construction activities.
35. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment.
36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
37. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.
38. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
39. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
40. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.
42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
43. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
44. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby

defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.

45. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
46. *Unit Price Work*—Work to be paid for on the basis of unit prices.
47. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
48. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 Terminology

- A. The words and terms discussed in the following paragraphs are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives:*
 1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day:*
 1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective:*
 1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or 15.04).
- E. *Furnish, Install, Perform, Provide:*
 1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. *Bonds:* When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Contractor’s Insurance:* When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.
- C. *Evidence of Owner’s Insurance:* After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

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

2.03 *Before Starting Construction*

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

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.03.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
 - 1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
 - 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
 - 3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

2.06 *Electronic Transmittals*

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

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE**3.01** *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 *Reference Standards*

A. Standards Specifications, Codes, Laws and Regulations

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

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies:*

1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies:*

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

3.04 Requirements of the Contract Documents

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

3.05 Reuse of Documents

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

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK**4.01 Commencement of Contract Times; Notice to Proceed**

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

4.02 Starting the Work

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

4.03 Reference Points

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

responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:
 - 1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 - 2. abnormal weather conditions;
 - 3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and
 - 4. acts of war or terrorism.
- D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.
- E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.
- F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.
- G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS**5.01 Availability of Lands**

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 Use of Site and Other Areas

- A. *Limitation on Use of Site and Other Areas:*
 - 1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
 - 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.
- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading of Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;
2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and
3. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site either:

1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate; or
2. is of such a nature as to require a change in the Drawings or Specifications; or
3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

B. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.

C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the

resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.

D. *Possible Price and Times Adjustments:*

1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
 - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or
 - b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 5.04.A.
3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and
 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;
 - c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and

- d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.
- C. *Engineer's Review:* Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.
- E. *Possible Price and Times Adjustments:*
 - 1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times; and
 - d. Contractor gave the notice required in Paragraph 5.05.B.
 - 2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
 - 3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
 - 1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
 - 2. Technical Data contained in such reports and drawings.

- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.
- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.
- H. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.H shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6 – BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.
- B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.
- C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.
- D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.
- E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.

- F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

6.02 *Insurance—General Provisions*

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

6.03 *Contractor's Insurance*

- A. *Workers' Compensation:* Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.

2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
 3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).
 4. Foreign voluntary worker compensation (if applicable).
- B. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:
1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
 2. claims for damages insured by reasonably available personal injury liability coverage.
 3. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- C. *Commercial General Liability—Form and Content:* Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:
1. Products and completed operations coverage:
 - a. Such insurance shall be maintained for three years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
 2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
 3. Broad form property damage coverage.
 4. Severability of interest.
 5. Underground, explosion, and collapse coverage.
 6. Personal injury coverage.
 7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.
 8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.
- D. *Automobile liability:* Contractor shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.
- E. *Umbrella or excess liability:* Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.
- F. *Contractor's pollution liability insurance:* Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.

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

6.04 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.
- B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

6.05 *Property Insurance*

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."
 2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.
 3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.
 4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).
 5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
 6. extend to cover damage or loss to insured property while in transit.
 7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
 8. allow for the waiver of the insurer's subrogation rights, as set forth below.
 9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
 10. not include a co-insurance clause.
 11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
 12. include performance/hot testing and start-up.
 13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.
- B. *Notice of Cancellation or Change:* All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.

- C. *Deductibles*: The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.
- D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
- E. *Additional Insurance*: If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.
- F. *Insurance of Other Property*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 Waiver of Rights

- A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.
- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:
 - 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 - 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.
- D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising

out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.
- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

7.01 *Supervision and Superintendence*

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

7.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.
- B. All materials and equipment incorporated into the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.04 "Or Equals"

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.
 - 1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) it has a proven record of performance and availability of responsive service; and
 - 4) it is not objectionable to Owner.
 - b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.
- B. *Contractor's Expense:* Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.
- C. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.
- D. *Effect of Engineer's Determination:* Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.
- E. *Treatment as a Substitution Request:* If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer considered the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 Substitutes

- A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.

1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.
2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - a. shall certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design,
 - 2) be similar in substance to that specified, and
 - 3) be suited to the same use as that specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from that specified, and
 - 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- E. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute at Contractor's expense.

- F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.
- B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.
- E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.
- F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.
- H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.
- J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.
- K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.
- L. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

- M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.
- N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.
- O. Nothing in the Contract Documents:
 - 1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor
 - 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

7.07 *Patent Fees and Royalties*

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

7.08 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work

7.09 *Taxes*

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

7.10 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *Record Documents*

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

7.12 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. all persons on the Site or who may be affected by the Work;
 - 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.

- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).
- G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 *Safety Representative*

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

7.14 *Hazard Communication Programs*

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

7.15 *Emergencies*

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

7.16 *Shop Drawings, Samples, and Other Submittals*

A. *Shop Drawing and Sample Submittal Requirements:*

1. Before submitting a Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.
 3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.
- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.
1. *Shop Drawings:*
 - a. Contractor shall submit the number of copies required in the Specifications.
 - b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.D.
 2. *Samples:*
 - a. Contractor shall submit the number of Samples required in the Specifications.
 - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.
 3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Other Submittals:* Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.
- D. *Engineer's Review:*
1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.
 3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
 4. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.
 5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.

6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.
8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.

E. *Resubmittal Procedures:*

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

7.17 *Contractor's General Warranty and Guarantee*

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

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

7.18 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 - 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 - 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.19 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.
- B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

- D. Pursuant to this paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

ARTICLE 8 – OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.
- C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.
- D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

8.02 *Coordination*

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

8.03 *Legal Relationships*

- A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this paragraph.
- C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.
- D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

ARTICLE 9 – OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

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

9.02 *Replacement of Engineer*

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

9.03 *Furnish Data*

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

9.04 *Pay When Due*

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

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

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

9.06 *Insurance*

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

9.07 *Change Orders*

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

9.08 *Inspections, Tests, and Approvals*

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

9.09 *Limitations on Owner's Responsibilities*

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

9.10 *Undisclosed Hazardous Environmental Condition*

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

9.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION**10.01** *Owner's Representative*

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

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the

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

- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.08. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent, or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

10.04 *Rejecting Defective Work*

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

10.05 *Shop Drawings, Change Orders and Payments*

- A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.
- B. Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, are set forth in Paragraph 7.19.
- C. Engineer's authority as to Change Orders is set forth in Article 11.
- D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 *Determinations for Unit Price Work*

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

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

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

10.08 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

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

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

11.01 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
 - 1. *Change Orders:*
 - a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.
 - b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.
 - 2. *Work Change Directives:* A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.
 - 3. *Field Orders:* Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field

Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 *Owner-Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.03 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

11.04 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:
 - 1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or
 - 2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or
 - 3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).
- C. *Contractor's Fee:* When applicable, the Contractor's fee for overhead and profit shall be determined as follows:
 - 1. a mutually acceptable fixed fee; or
 - 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 13.01.B.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.01.C.2.a and 11.01.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier

higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;

- d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
- e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
- f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 *Change of Contract Times*

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

11.06 *Change Proposals*

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

11.07 Execution of Change Orders

- A. Owner and Contractor shall execute appropriate Change Orders covering:
1. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and
 4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.
- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 Notification to Surety

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

ARTICLE 12 – CLAIMS**12.01 Claims**

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

D. *Mediation:*

1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.
 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.
 3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.
- E. *Partial Approval:* If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim:* If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.
- G. *Final and Binding Results:* If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

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

13.01 *Cost of the Work*

- A. *Purposes for Determination of Cost of the Work:* The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
 2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included:* Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:
1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 6.05), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
 - g. The cost of utilities, fuel, and sanitary facilities at the Site.
 - h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
 - i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.
- C. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:
 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects,

estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.
- D. *Contractor's Fee:* When the Work as a whole is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 11.04.C.
- E. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

13.02 Allowances

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.
- B. *Cash Allowances:* Contractor agrees that:
1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.
- C. *Contingency Allowance:* Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

13.03 Unit Price Work

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.

- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph.
- E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:
 - 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;
 - 2. there is no corresponding adjustment with respect to any other item of Work; and
 - 3. Contractor believes that it is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price, and the parties are unable to agree as to the amount of any such increase or decrease.

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

14.01 Access to Work

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

14.02 Tests, Inspections, and Approvals

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
 - 1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 - 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 - 3. by manufacturers of equipment furnished under the Contract Documents;
 - 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and

5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

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

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

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

14.04 *Acceptance of Defective Work*

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

14.05 *Uncovering Work*

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

- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
 - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
 - 2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

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

14.07 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, then Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.
- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD**15.01 Progress Payments**

- A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.
- B. *Applications for Payments:*
1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
 2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
 3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.
- C. *Review of Applications:*
1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
 2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
 3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed

inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or

- b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
- a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
- a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;
 - c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
 - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due:*

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

E. *Reductions in Payment by Owner:*

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
- a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
 - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;

- d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. the Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. the Contract Price has been reduced by Change Orders;
 - i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;
 - j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - l. there are other items entitling Owner to a set off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.
3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement.

15.02 *Contractor's Warranty of Title*

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

15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of

Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.

- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.
- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 - 1. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.
 - 2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 - 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
 - 4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.05 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

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

15.06 Final Payment**A. Application for Payment:**

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.
 - d. a list of all disputes that Contractor believes are unsettled; and
 - e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

B. Engineer's Review of Application and Acceptance:

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Completion of Work: The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.**D. Payment Becomes Due:** Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 Waiver of Claims

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

15.08 Correction Period

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

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION**16.01 Owner May Suspend Work**

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both,

directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);
 - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:
 - 1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and
 - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.
- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

16.04 Contractor May Stop Work or Terminate

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

17.01 Methods and Procedures

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

ARTICLE 18 – MISCELLANEOUS**18.01 *Giving Notice***

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

18.02 *Computation of Times*

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

18.03 *Cumulative Remedies*

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

18.04 *Limitation of Damages*

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

18.05 *No Waiver*

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

18.06 *Survival of Obligations*

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

18.07 *Controlling Law*

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

18.08 *Headings*

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

END OF DOCUMENT 00 72 00 - GENERAL CONDITIONS

DOCUMENT 00 73 16 - INSURANCE REQUIREMENTS

1. The OWNER and ENGINEER shall be named as an additional Insured in all insurance provided by the CONTRACTOR, and the insurance shall be in the limits shown, and the policy shall be clearly identified for this project. The limits of liability for the insurance required by paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

6.03.A.1 and 6.03.A.3 Workers' Compensation, etc. under paragraphs 6.03.A.1 and 6.03.A.3 of the General Conditions:

- (1) State: Statutory
- (2) Applicable Federal (e.g. Longshoreman's): Statutory
- (3) Employer's Liability: \$500,000

6.03.B.1, 6.03.B.2, and 6.03.B.3 Comprehensive General Liability (under paragraphs 6.03.B.1 through 6.03.B.3 of the General Conditions):

- (1) Bodily Injury (including completed operations and products liability):
\$1,000,000.00 Each Occurrence
\$2,000,000.00 Annual Aggregate
- (2) Property Damage:
\$1,000,000.00 Each Occurrence
\$2,000,000.00 Annual Aggregate
or a combined single limit of \$2,000,000
- (3) Property Damage liability insurance will provide Explosion, Collapse and Underground coverages where applicable.
- (4) Personal Injury, with employment exclusion deleted
\$1,000,000.00 Annual Aggregate

6.03.D Comprehensive Automobile Liability:

- (5) Bodily Injury:
\$1,000,000.00 Each Person
\$1,000,000.00 Each Occurrence
- (6) Property Damage:
\$1,000,000.00 Each Occurrence
or combined single limit of \$1,000,000

6.03.E Pollution Liability Insurance (under paragraph 6.03 E of the General Conditions)

- (7) Bodily Injury
\$1,000,000.00 Each Occurrence
- (8) Property Damage
\$1,000,000.00 Each Occurrence
\$2,000,000.00 Annual Aggregate

2. The Contractual Liability required by paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts:

6.03.G Bodily Injury:

\$1,000,000.00Each Occurrence

6.03.I.2 Property Damage:

\$1,000,000.00Each Occurrence

\$2,000,000.00Annual Aggregate

3. Delete Paragraph 6.05 of the General Conditions in its entirety and insert the following in its place:

6.05 CONTRACTOR shall purchase and maintain until final payment, property insurance upon the Work at the site to the full insurable value thereof (subject to such deductible amounts as may be provided in these Supplementary Conditions or required by Laws and Regulations). This insurance shall include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER and Engineer's consultants in the Work (all of whom shall be listed as insured or additional insured parties), shall insure against the perils of fire and extended coverage, shall include "all-risk" insurance for physical loss and damage including theft, vandalism and malicious mischief, collapse and water damage, and such other perils as may be provided in these Supplementary Conditions, and shall include damages, losses and expenses arising in the repair or replacement of any insured property (including but not limited to fees and charges of engineers, architects, attorneys and other professionals). If not covered under the "all-risk" insurance or otherwise provided in these Supplementary Conditions, CONTRACTOR shall purchase and maintain similar property insurance on portions of the Work are to be included in an Application for Payment. The policies of insurance required to be purchased and maintained by CONTRACTOR in accordance with this paragraph 6.05 shall comply with the requirements of GC-6.07.

END OF DOCUMENT- 00 73 16 – INSURANCE REQUIREMENTS

SECTION 01 22 00 – MEASUREMENT AND PAYMENT

Measurements for purposes of payment shall be in accordance with the unit quantities stated in the proposal as defined below. Prices for the following bid items shall include all labor, materials, tools, equipment, and other incidentals necessary to complete the work as shown on the plans and in accordance with The Bedford Regional Water Authority's Master Specifications, latest edition.

SECTION I – UTILITY CONSTRUCTION**I.A. SANITARY SEWER LINE CONSTRUCTION****1. Sewer Pipe (including Carrier Pipe, except for bored and jacked applications):**

Measurement: Sewer pipe will be measured from the exact beginning of the pipe to the end of the line. No deductions in length will be made for branches and appurtenances along the line.

Payment: Sewer pipe will be paid for at the contract unit price per linear foot for pipe of the type and size specified, complete in place (including stone bedding), at the 4-foot minimum depth to top of pipe. This price shall include trench excavation (excluding rock), warning tape, tracing wire, shoring or use of trench box, installation, pumping, backfilling, compaction, testing of failed trenches, disposal of excess material, and pressure testing.

2. Bored and Jacked Sewer Pipe:

Measurement: Bored and jacked sewer pipe of the type and diameter specified will be measured by the linear foot that is installed by the boring and jacking method.

Payment: Bored and jacked sewer pipe will be paid for at the contract unit prices per linear foot per diameter per type of pipe bored and shall include the carrier pipe and any and all excavation, including the boring pit, any backfill, dewatering, etc., complete in place. However, the bore shall be paid one time on a linear foot basis and no extra compensation will be paid for failures and the subsequent withdrawal and re-jacking attempts.

3. Manholes - Standard:

Measurement: Standard manholes will be measured by the vertical foot of the manhole constructed. Manholes shall be measured from the lowest point of the invert to the top of the concrete casting and recorded to the nearest 1/10-foot.

Payment: Standard manholes will be paid for at the contract unit price per vertical foot, complete in place including excavation. Price shall include complete invert pouring and forming of concrete in accordance with the standards and drawings, rubber boots, bedding stone, bolting castings to cone, gaskets, vent pipe if required, external wrap, vacuum testing, steps, backfill, compaction, complete in place. Adjusting rings, frames, covers, chimney seals and concrete riser rings shall be paid for separately.

4. Interior Manhole Drop Connection:

Measurement: Interior drop connections will be measured per each installed.

Payment: Interior manhole drop connections will be paid for at the unit contract price per each installed, complete in place in accordance with **Standard Detail MH-6**.

5. Manholes – Doghouse:

Measurement: Doghouse manholes will be measured the same as for a standard manhole in vertical feet of manhole constructed. Manholes shall be measured from the lowest point of the invert to the top of the concrete casting and recorded to the nearest 1/10-foot.

Payment: Doghouse manholes will be paid for at the contract unit price per vertical foot, complete in place, including excavation. Price shall include pouring of concrete footing and invert, invert forming in accordance with the standards and drawings, bedding stone, bolting castings to cone, gaskets, external wrap, steps, backfill, and compaction, complete in place. Adjusting rings, frames and covers shall be paid for separately.

6. Manhole Precast Concrete Riser Ring:

Measurement: Manhole precast concrete riser rings, as described in Section 33 05 00 Common Work Results for Utilities- paragraph- 2.5 Manholes 5.10 Frame- Chimney Seals, will be measured from the top of the precast

structure to the bottom of the frame, on a vertical foot basis.

Payment: Manhole precast concrete riser rings will be paid for at the contract unit price per vertical foot, complete in place, and shall include all labor, material, and equipment necessary to adjust the height of the manhole frame and cover by inserting a precast concrete riser ring on top of the manhole and sealing the joint with mastic and non-shrink grout as well as installation of the external grade/riser sealant.

7. **Manhole Frames and Covers – Standard and Waterproof:**

Measurement: Manhole frames and covers will be measured at the contract unit price per each for the type required.

Payment: Manhole frames and covers will be paid for at the contract unit price per each, complete in place, as shown on Standard Details FC-1 and FC-2.

8. **Appurtenances:**

Measurement: Wye Branches, tees, bends, etc. will be measured by the number of units installed of each size.

Payment: Wye branches, tees, bends, etc. will be paid for at the contract unit price per each, complete in place for each size.

9. **Cleanout Assembly:**

Measurement: Cleanout assemblies will be measured per each installed in accordance with the appropriate Standard Detail. No measurement will be made for items inclusive to the cleanout assembly as identified on the Standard Details.

Payment: Cleanout assemblies will be paid for at the contract unit price per each for cleanout assemblies per size and shall include all labor, material, equipment necessary for installation, complete in place.

10. **Cleanout Vertical Pipe:**

Measurement: Cleanout vertical pipe will be measured from six (6) feet above the top of the combination wye to cap/plug in linear foot. Vertical pipe for cleanouts less than six (6) feet depth will not be separately measured for payment but will be considered inclusive to the Cleanout Assembly.

Payment: Cleanout vertical pipe will be paid for per linear foot per size at the contract unit price, complete in place, including excavation, locating wire, and all materials, labor, and equipment and shall include full compensation for any final adjustments to grade once finish grade is established.

11. **Terminal Line Cleanout Vertical Pipe:**

Measurement: Vertical pipe for terminal cleanout will be measured from six (6) feet above the top of the 45-degree bend to the cap/plug, excluding the terminal cleanout cap and concrete collar, in vertical feet. Vertical pipe for cleanouts less than six (6) feet depth will not be separately measured for payment but will be considered inclusive to the Cleanout Assembly.

Payment: Vertical pipe for vertical cleanouts will be paid for per linear foot per diameter of pipe at the contract unit price, complete-in-place, including excavation, all materials, labor and equipment and shall include full compensation for any final adjustments.

12. **Cleanout Frame and Cover: Standard and Traffic Bearing**

Measurement: Standard cleanout covers will be measured on an each basis and includes the 18" square class A3 concrete collar and in accordance with Standard Detail CO-T. Traffic bearing cleanout covers will be measured on an each basis and includes the 24" square class A3 concrete collar and the Neenah R-1792-BL or approved equal frame and cover in accordance with Standard Detail CO-T.

Payment: Standard Cleanout covers will be paid for at the contract unit price per each and covers the cleanout adapter & threaded plug cap and 18 inch square concrete collar, complete-in-place, including all materials, labor including equipment and shall include full compensation for any final adjustments. Traffic bearing cleanout frame and cover will be paid at the contract unit price per each and covers the cleanout adapter & threaded plug, Neenah R-1792-BL or approved equal frame and cover, 24" square class A3 concrete collar, complete-in-place, including all materials, labor including equipment and shall include full compensation for any final adjustments.

13. Service Saddles on Existing Lines:

Measurement: Service saddles for taps placed on existing lines will be measured on an each basis per size installed. See Section 33 30 00 – Sanitary Sewerage Utilities and Section 33 03 00 – Utility Pipe and Materials.

Payment: Service saddles for taps placed on existing lines will be paid for at the contract unit price per each, complete in place. Any temporary pumps required to bypass sewer around work areas shall be provided at no additional cost.

14. Machine Core Existing Manholes:

Measurement: Machine core of existing manholes will be measured on an each basis.

Payment: Machine core of existing manholes will be paid for at the contract unit price per each. Price shall include all labor, equipment, and materials to machine core drill and install the neoprene flexible boot and adjustable band, complete in place.

15. Harco Rigid Fittings:

Measurement: Harco rigid fittings will be measured on an each basis of the size required.

Payment: Fittings will be paid for at the contract unit price per each of the size required. Price shall include all labor, equipment, and materials to install the fitting, complete in place.

16. Manhole Chimney Seals:

Measurement: Manhole chimney seals (interior and exterior) will be measured on an each basis.

Payment: Manhole chimney seals will be paid for at the contract unit price per each, complete in place, as referenced in Document 33 30 00 – Sanitary Sewerage Utilities.

17. Air and Vacuum Release Valves:

Measurement: Air and vacuum release valves will be measured on an each basis.

Payment: Air and vacuum release valves will be paid for at the contract unit price per air and vacuum valve for the size specified, complete in place as shown on **Standard Detail AR-3 and AR-4**.

18. Force Main Connection:

Measurement: Force main connection assemblies will be measured on an each basis.

Payment: Force main connection assemblies will be paid for at the contract unit price per assembly for the size specified, complete in place as shown on **Standard Detail GP-2**.

I.B. WATER DISTRIBUTION**1. Water Pipe (including Carrier Pipe):**

Measurement: Water pipe will be measured by the linear foot. All pipe will be measured from the exact beginning of the pipe to the end of the line without deduction for fittings (I.e. fittings and valves). Hydrant leads will also be measured as pipe.

Payment: Water pipe will be paid for at the contract unit price per linear foot of the type and size pipe specified, complete in place. This price shall include trench excavation (excluding rock), shoring, or use of trench box, installation, warning tape, locating wire (as required per applicable specification), pumping, backfilling, compaction, testing of failed trenches, disposal of excess material, pressure testing, chlorinating, and proper disposal of chlorinated water. Payment for mechanical joint pipe shall also include accessory kits.

2. Paved Entrance Crossing (free bore):

Measurement: Free bores will be measured in linear feet free bored.

Payment: Free bores will be paid for at the unit contract price per linear foot. This price shall be full compensation for furnishing all labor, materials, casing pipe deemed necessary by contractor, tools, equipment, property restoration, and incidentals necessary to complete the work. Carrier pipe shall be compensated for under Water Pipe.

3. Fittings:

Measurement: Fittings will be measured by the pound.

Payment: Fittings will be paid for at the contract unit price by the pound based on AWWA C110/ANSI 21.10 published weights and shall include all material, equipment, and labor to install, test, disinfect, complete in place.

4. Valves:

Measurement: Gate valves and insert valves, will be measured on an each basis of the size and type of valve installed.

Payment: Gate valves and insert valves will be paid for at the contract unit price, complete-in-place. This price shall include providing and installing the valve box.

5. Wet Tap:

Measurement: Wet taps will be measured on an each basis.

Payment: Wet taps will be paid for at the contract unit price per tap for the size specified, complete in place. Wet tap price shall include furnishing all materials, equipment, and labor to make a wet tap on an existing line, to include valve, valve box, tapping sleeve, anchor blocks, excavations, backfill, and testing of sleeve.

6. Polyethylene (PE) Pipe for Water Services (Open Cut):

Measurement: Polyethylene (PE) for water services will be measured by the linear foot from the center of the water main to the center of the water meter box and including pigtails.

Payment: Polyethylene (PE) pipe for water services will be paid for at the contract unit price per linear foot of the size indicated on the drawings and shall include all equipment, labor, and materials for installation, to include testing and disinfection, complete in place, at a minimum depth of 24 inches below the top of the meter box.

7. Polyethylene (PE) Pipe for Water Services (by Jacking or Boring):

Measurement: Polyethylene (PE) by jacking or boring will be measured by the linear foot from the center of the water main to the center of the water meter box in a horizontal plane.

Payment: Polyethylene (PE) by jacking or boring will be paid for at the contract unit price per linear foot of the size indicated on the drawings and shall include all equipment, labor, and materials for installation to include testing and disinfection, complete in place, at a minimum of 24 inches below the top of the meter box.

8. Tie Rods:

Measurement: Tie Rods will be measured by the linear foot of the specified size installed.

Payment: Tie Rods will be paid for at the contract unit price per linear foot for the specified size installed.

9. Mechanical Thrust Restraint, Megalugs, Retainer Glands and Retainer Clamps:

Measurement: Mechanical thrust restraint, megalugs, retainer glands, and retainer clamps will be measured in pounds of the specified size installed.

Payment: Mechanical thrust restraint, megalugs, retainer glands, and retainer clamps will be paid for at the contract unit price per pound for the type retainer specified, complete in place. The price shall include all nuts, bolts, eyebolts, gaskets, and special retainer washers required for assembly.

10. Fire Hydrants:

Measurement: Fire hydrants will be measured by the number of hydrants installed on an each basis as per **Standard Detail FH-1**. Installation of fire hydrants on existing mains will be measured accordingly with each specific line item used for such installation.

Payment: Fire Hydrants will be paid for at the contract unit price per each to include all labor, materials, equipment necessary to install the hydrant including s t o n e , accessory kits, megalugs, concrete pad, fabric, testing and disinfecting, painting, complete in place. When there is change in the plans, which results in the need for a longer extension of the fire hydrant barrel, the extension beyond the depth of 4 feet shall be paid for at the contract unit price per vertical foot of barrel for the fire hydrant extension. No additional compensation will

be made for hydrants located on either high or low pressure systems. Installation of fire hydrants on existing mains will be paid for accordingly with each specific line used for such installation.

11. Water Meter Box and Assembly (New Construction Only):

Measurement: Water meter box and assemblies will be measured on an each basis.

Payment: Water meter box and assemblies will be paid for at the contract unit price per size indicated on drawings, in terms of one complete box and meter connection assembly, and shall include excavations, backfilling, testing, chlorinating, bacteriological testing, meter box, angle valve, iron yoke, dual check valve, cast iron top, and corporation stop, complete in place. If replacing an existing meter box, cost shall include removal and disposal of the old meter box and assembly. If meter box does not require tying into existing service, pigtail shall be crimped. Cost for either circumstance shall be included in other items bid.

12. Water Meter Box and Assembly (Replacement of Existing Connection Only):

Measurement: Water meter box and assemblies will be measured on an each basis.

Payment: Water meter box and assemblies will be paid for at the contract unit price per size indicated on drawings, in terms of one complete box and meter connection assembly, and shall include excavations, backfilling, testing, chlorinating, bacteriological testing, meter box, angle valve, iron yoke, yoke ell, cast iron top, and corporation stop, complete in place. If replacing an existing meter box, cost shall include removal and disposal of the old meter box and assembly. If meter box does not require tying into existing service, pigtail shall be crimped. Cost for either circumstance shall be included in other items bid.

13. Air and Vacuum Release Valves:

Measurement: Air and vacuum release valves will be measured on an each basis.

Payment: Air and vacuum release valves will be paid for at the contract unit price per air and vacuum valve for the size specified, complete in place as shown on **Standard Detail AR-1 and AR-2**.

14. Blow-off Valves:

Measurement: Blow off valves will be measured on an each basis.

Payment: Blow-off valves will be paid for at the contract unit price per blow-off valve for the size specified, complete in place as shown on **Standard Detail BC-1**.

15. Waterline Tie-Ins:

Measurement: Waterline tie ins will be paid for on an each basis.

Payment: Waterline tie ins will be paid for at the contract unit price per each including any valves, tapping saddles, and valve box. Price shall include all labor, materials and equipment to install, test, and disinfect each assembly.

16. Water Line Cut and Cap:

Measurement: Water line cut and caps for water line abandonment will be paid for on an each basis per line size.

Payment: Water line cut and caps will be paid for at the contract unit price per each and shall include all labor, materials, and equipment to excavate, cut, cap, anchor, and backfill. Asphalt patches will be paid for separately.

17. Water Service Tapping Saddles:

Measurement: Water Service Tapping Saddles will be measured by the contract unit price per each of the size needed based on the size of the water main.

Payment: Water Service Tapping Saddles will be paid for by the contract unit price per each of the size needed based on the size of the water main and shall include all equipment, labor, and materials for installation to include testing, complete in place.

18. Concrete Bulkhead Anchors:

Measurement: Bulkhead anchors will be measured and paid for at the contract unit price per each

Payment: Bulkhead anchors will be paid for by the contract unit price per each according to **Standard Detail CA-4** and shall include full compensation for all excavation, dewatering, form work, tie rods, backfill, compaction, and restoration of property, and for all labor, tools, equipment and incidentals necessary to install the bulkhead anchor complete in place.

I.C. TRENCHING, BACKFILLING & COMPACTION OF UTILITIES

1. Pavement Cut and Removal, Asphalt Concrete:

Measurement: Asphalt concrete pavement cut and removed will be measured in square yards regardless of the existing pavement depth. Refer to Standard Details TB-1, TB-2, TB-3, and TB-4, and Section 31 23 33 Trenching and Backfilling for calculation of pavement removal dimensions for utility trench patches.

Payment: Asphalt concrete pavement cut and removed will be paid for at the contract unit price per square yard for bituminous pavement cut and removed, including all material, equipment, and labor to saw cut pavement, remove and dispose of surplus material.

2. Pavement Cut and Removal, Unreinforced Concrete:

Measurement: Unreinforced concrete pavement cut and removed will be measured in square yards regardless of the existing pavement depth. Refer to Standard Details TB-1, TB-2, TB-3, and TB-4, and Section 31 23 33 Trenching and Backfilling for calculation of pavement removal dimensions for utility trench patches.

Payment: Unreinforced concrete pavement cut and removed will be paid for at the contract unit price per square yard for unreinforced concrete pavement cut and removed, including all material, equipment, and labor to saw cut pavement, remove and dispose of surplus material.

3. Pavement Cut and Removal, Reinforced Concrete:

Measurement: Reinforced concrete pavement cut and removed will be measured in square yards regardless of the existing pavement depth. Refer to Standard Details TB-1, TB-2, TB-3, and TB-4, and Section 31 23 33 Trenching and Backfilling for calculation of pavement removal dimensions for utility trench patches.

Payment: Reinforced concrete pavement cut and removed will be paid for at the contract unit price per square yard for reinforced concrete pavement cut and removed, including all material, equipment, and labor to saw cut pavement, remove and dispose of surplus material.

4. Extra Depth Excavation – All Pipes:

Measurement: Extra depth excavation for pipelines will be measured by the cubic yard. Refer to Standard Details TB-1, TB-2, TB-3, and TB-4, and Section 31 23 33 Trenching and Backfilling for trench width and depths allowed in calculated Extra Depth Excavation.

Payment: Extra depth excavation will be paid for at the contract unit price per cubic yard for extra depth excavation and shall include all material, equipment, and labor required for excavation. The price shall also include all shoring, trench boxes, dewatering, traffic control, and safety devices required.

5. Foundation Stone:

Measurement: Foundation stone for pipelines will be measured by the cubic feet of foundation stone placed in the trench in accordance with Standard Details TB-1, TB-2, TB-3, and TB-4. Trench width shall also be measured in accordance with Standard Details TB-1, TB-2, TB-3, and TB-4. Cubic feet of foundation stone material placed will be converted to tons using the weight of 145 pounds per cubic feet.

Payment: Foundation stone will be paid for at the contract unit price for foundation stone by the ton. Price shall include removal and disposal of unusable material and placement of stone, complete in place.

6. Compacted Aggregate Backfill:

Measurement: Compacted aggregate backfill will be measured by the cubic feet of material placed in accordance with Standard Details TB-1, TB-2, TB-3, and TB-4. Trench width shall also be measured in accordance with these details. Cubic feet of material calculated will be converted to tons using the weight of 145 pounds per cubic foot.

Payment: Compacted aggregate backfill will be paid for at the contract unit price per ton for aggregate backfill and shall include all materials, equipment, and labor required to furnish and compact, complete in place, VDOT

No. 21A stone in the locations designated by the Authority.

7. Coarse Granular Aggregate Backfill:

Measurement: Coarse granular aggregate backfill will be measured by the cubic feet of material placed in accordance with Section 31 23 33 Trenching and Backfilling. Trench width shall also be measured in accordance with these specifications. Cubic feet of material calculated will be converted to tons using the weight of 145 pounds per cubic foot.

Payment: Coarse granular aggregate backfill will be paid for at the contract unit price per ton for aggregate backfill and shall include all materials, equipment, and labor required to furnish and consolidate, complete in place, VDOT No. 57 stone in the locations designated by the Authority.

8. Trench (Select) Borrow Backfill:

Measurement: Trench borrow will be measured by the cubic yard of material installed in the trench, limiting the trench width to a maximum of the pipe outside diameter plus 2 feet.

Payment: Trench borrow will be paid for at the contract unit price by the cubic yard and shall include all material, equipment, and labor to furnish, haul, place, and compact the approved material, complete in place, in the locations as designated on the drawings or as approved by the Authority.

9. Trench Rock:

Measurement: Trench rock excavation will be measured by the Authority's representative in its original position, after which the rock shall be excavated to the depth specified and then measured by the cubic yard. Refer to Section 31 23 33 Trenching and Backfilling and Section 31 00 00 – Earthwork – paragraph -2.1.3 Rock. Trench width shall also be measured in accordance with these specifications for allowable width of rock removal in trench. Rock excavation shall consist of the removal and satisfactory disposal of all materials, which are classified as rock in the opinion of the Authority. No payment shall be made for rock removal by ripping. Refer to Section 31 23 33-Trenching, Backfilling– paragraph -3.36 Rock Excavation for definition of materials classified as rock and to Section 31 00 00- Earthwork- paragraph – 2.1.3 Rock.

Payment: Trench rock excavation will be paid for at the contract unit price per cubic yard for rock excavation and shall include all labor, materials, and equipment to excavate and dispose of rock off site.

10. Maintenance Stone for Pipe Installation:

Measurement: Maintenance stone for pipe installation will be measured by the square yard (6 inches thick) of material placed per the direction of the Authority's representative.

Payment: Maintenance stone for pipe installation will be paid for at the contract unit price per square yard (6 inches thick) for aggregate backfill on a one time basis and shall include all materials, equipment, and labor required to furnish and compact, complete in place, VDOT No. 21A stone in the locations designated by the Authority.

11. Other: Other items shall be paid for as state in the Proposal.

I.D. EARTHWORK

1. Offsite Borrow:

Measurement: Off-site borrow will be measured in its original position by cross sectioning the area excavated for borrow. The number of cubic yards will be computed from cross section measurements by the average end method. When it is impractical to measure the borrow, and if approved by the Authority, vehicular measurements will be made in accordance with *VDOT Road and Bridge Specifications*, Section 109.01.

Payment: Off-site borrow will be paid at the contract unit price per cubic yard for material placed, compacted, and complete in place, including all excavation, loading, hauling, erosion control of borrow source, placement, spreading and compaction of borrow material. Material obtained from the site by cut and fill areas or other areas onsite that are designated to be used as borrow material is not a pay item for material but payment will be made by regular excavation.

2. Regular Excavation:

Measurement: Regular excavation will be measured in its original position by cross sectioning the excavation

area. The number of cubic yards will be computed from cross section measurements by the average end method. When it is impractical to measure by cross-section method, other acceptable methods, involving three-dimensional measurements may be used if approved by the Authority.

In cut sections, excavation of topsoil and root mat and material down to a point of 1 foot below elevation of the top of earthwork or to the depth specified on the plans will be measured at regular excavation. When areas of unsuitable material are shown on the plans, excavation down to a point of 1 foot below the elevation of such material shown on the plans will be measured as regular excavation.

In fill sections, excavation of topsoil and root mat and material down to an elevation of 1 foot below the bottom of topsoil and root mat will be measured at regular excavation. When areas of unsuitable material are shown on the plans, excavation down to a point 1 foot below the elevations of such material shown on the plans will be measured at regular excavation.

Payment: Regular excavation will be paid at the contract unit price per cubic yard of excavation and shall include all labor, equipment, and material required, complete in place, including all excavation, loading, moving of cut and fill material, placement, spreading and compaction of material.

3. **Rock Excavation:**

Measurement: Rock excavation will be measured by the Authority's representative in its original position, after which the rock shall be excavated to the depth specified by the Authority and then measured by the cubic yard. Rock excavation shall consist of the removal and satisfactory disposal of all materials, which are classified as rock in the opinion of the Engineer. No payment shall be made for rock removal by ripping. Refer to Section 02200- *Earthwork- paragraph Rock Excavation* for definition of materials classified as rock.

Payment: Rock excavation will be paid for at the contract unit price per cubic yard for rock excavation and shall include all labor, materials, and equipment to excavate and dispose of rock off site.

4. **Undercut Excavation:**

Measurement: The material shown on the plans as undercut excavation or determined by the Authority to be unsuitable and designated as undercut excavation and not included in regular excavation will be measured by cross sectioning the undercut area. The number of cubic yards will be computed by average end method. When it is impractical to measure by cross-section method because of erratic locations of isolated deposits, other acceptable methods, involving three-dimensional measurements may be used if approved by the Authority.

When unsuitable material must be removed from an area of the project where undercut is not shown on the plans, unsuitable material removed after reaching an elevation 1 foot below the top of the earthwork in cut sections and 1 foot below the bottom of topsoil and root mat in fill sections will be measured as undercut excavation. Unsuitable material removed after reaching an elevation 1 foot below the top of earthwork in cut sections, or 1 foot below the elevation of such material shown on the plans, or 1 foot below original ground in fill sections where topsoil and root mat are not required to be removed, will be measured as undercut excavation.

Payment: Undercut excavations will be paid for at the contract unit price per cubic yard for undercut excavation and shall include all labor, equipment, and material required, complete in place, including all excavation and disposal of material.

5. **Pavement Cut and Removal:**

Measurement: Pavement cut and removal shall consist of the removal and satisfactory disposal of all materials that may be designated for removal by the Authority or shown to be removed on plans. Pavement cut and removed shall be measured by the square yard in terms of material removed from its original positions. No payment for materials removed without authorization from the Authority or beyond the lines and grades set by the Authority.

Payment: Pavement cut and removal will be paid for at the contract unit price per square yard. The price shall include all labor, equipment, and materials necessary to remove and dispose of, off site, any required structures, complete in place, including sawing or cutting the existing pavement if required.

6. **Concrete Cut and Removal:**

Measurement: Concrete cut and removal shall consist of the removal and satisfactory disposal of all materials in concrete structures that may be designated for removal by the Authority or shown to be removed on plans.

These structures shall include sidewalks, concrete pavement, and other minor structures; measured by the square yard in terms of material removed from its original positions. No payment for materials removed without authorization from the Authority or beyond the lines and grades set by the Authority.

Payment: Concrete cut and removal will be paid for at the contract unit price per square yard. The price shall include all labor, equipment, and materials necessary to remove and dispose of, off site, any required structures, complete in place, including sawing or cutting the existing concrete if required.

7. **Other:** Other items shall be paid for as stated in the Proposal.

I.E. ITEMS MISCELLANEOUS TO ALL SECTIONS

1. Clearing and Grubbing, Lightly Wooded Areas:

Measurement: Clearing and grubbing, lightly wooded areas will be measured by the acre. Width shall not exceed width as defined in the disturbing and construction limits criteria of sewer, water, and storm construction. Lightly wooded areas shall be defined as areas where the prevalent vegetation consists of trees less than 12 inches in diameter.

Payment: Clearing and grubbing, lightly wooded areas will be paid for at the contract unit price per acre and shall include all material, equipment, and labor required to clear and grub lightly wooded areas in accordance with these specifications. The price shall also include the removal and disposal of items that cannot be mulched or built into brush piles.

2. Clearing and Grubbing, Heavily Wooded Areas:

Measurement: Clearing and grubbing, heavily wooded areas will be measured by the acre. Width shall not exceed width as defined in the disturbing and construction limits criteria of sewer, water, and storm construction. Heavily wooded areas shall be defined as areas where the prevalent vegetation consists of trees 12 inches or greater in diameter.

Payment: Clearing and grubbing, heavily wooded areas will be paid for at the contract unit price per acre and shall include all material, equipment, and labor required to clear and grub heavily wooded areas in accordance with these specifications. The price shall also include the removal and disposal of items that cannot be mulched or built into brush piles.

3. Flowable Fill Concrete:

Measurement: Flowable fill will be measured by the cubic yard of concrete placed.

Payment: Flowable fill will be paid for at the contract unit price, complete in place, and shall include all materials, labor and equipment to place the concrete in locations as directed by the Authority or designated on the plans. This price shall also include any excavation and blocking or forming required.

4. Seeding and Fine Grading: (Permanent)

Measurement: Seeding and fine grading will be measured in square yards of area seeded. Seeding and fine grading shall be provided as described section in *General Requirements*, Section 01000. Extra compensation will not be made for additional seeding beyond all limits of construction as defined in applicable section.

Payment: Seeding and fine grading will be paid for at the contract unit price per square yard for seeding and fine grading as described in *General Requirements*, Section 01000. No compensation will be made for reseeding, if required.

5. Straw Bale Barrier:

Measurement: Straw bale barrier for erosion control will be measured by the linear foot.

Payment: Straw bale barrier for erosion control will be paid for at the contract unit price per linear foot and shall include all material, labor, and equipment necessary for a complete in place installation. The price shall also include the removal and disposal of straw bales upon stabilization of ground cover.

6. Silt Fence:

Measurement: Silt fence for erosion control will be measured by the linear foot.

Payment: Silt fence for erosion control will be paid for at the contract unit price per linear foot and shall include all material, labor, and equipment necessary for a complete in place installation. The price shall also include the removal and disposal of silt fence upon stabilization of ground cover.

7. **Gravel Outfall Structures:**

Measurement: Gravel outfall structures for erosion control will be measured on an each basis.

Payment: Gravel Outfall structures for erosion control will be paid for at the contract unit price per each and shall include all material, labor, and equipment necessary for a complete in place installation. The price shall also include the removal and disposal of the gravel outfall structure upon stabilization of ground cover.

8. **Temporary Diversion Dikes:**

Measurement: Temporary diversion dikes for erosion control will be measured by the linear foot of the diversion dike, complete and in place, measurement being along the top and centerline of the diversion dike.

Payment: Temporary diversion dikes for erosion control will be paid for at the contract unit price per linear foot per each and shall include all material, labor, and equipment necessary for a complete in place installation. The price shall also include the removal and disposal of the trap upon stabilization of ground cover.

9. **Construction Entrance for Erosion Control, (VDOT #1 stone):**

Measurement: Construction entrance for erosion control will be measured by the ton of VDOT #1 stone. Calculation shall be based on the length X width X depth of the entrance, as specified in the Erosion & Sediment Control Handbook, and converted to tons.

Payment: Construction entrance for erosion control will be paid for at the contract unit price per ton and shall include all materials (including geotextile fabric), labor, and equipment necessary for a complete in place installation. Payment will be made on a one time basis. No additional payment will be made for maintaining stone.

10. **Riprap:**

Measurement: Riprap for erosion control will be measured on an each basis.

Payment: riprap for erosion control will be paid for at the contract unit price per each and shall include all material, labor, and equipment necessary for a complete in place installation. The price shall also include the removal and disposal of the trap upon site stabilization.

11. **Soil Stabilization Mat:**

Measurement: Soil Stabilization mat for erosion control will be measured on an each basis.

Payment: Soil Stabilization mat for erosion control will be paid for at the contract unit price per each and shall include all material, labor, and equipment necessary for a complete in place installation. The price shall also include the removal and disposal of the measure upon stabilization of ground cover.

12. **Tree Removal (6" to 15" in diameter):**

Measurement: Trees indicated for removal will be measured four (4) feet above the ground including stump and root structure as directed by the Authority or representative. Trees measuring 6 inches to 15 inches will be paid for as indicated below. Trees measuring less than 6 inches will be considered incidental to other bid items.

Payment: Tree removal will be paid for at the contract unit price per each and shall include all material, equipment, and labor to remove and dispose of trees. No additional compensation will be made for removal and disposal of trees smaller than 6 inches in diameter."

13. **Tree Removal (over 15" in diameter):**

Measurement: Trees indicated for removal will be measured four (4) feet above the ground including stump and root structure as directed by the Authority's representative. Trees measuring greater than 15 inches will be paid for as indicated below.

Payment: Tree removal will be paid for at the contract unit price per each and shall include all material, equipment, and labor to remove and dispose of trees. No additional compensation will be made for removal and disposal of trees."

14. Temporary Seeding (Fall and Winter):

Measurement: Seeding will be measured in square yards of area seeded and shall be provided as described section in Seeding, Section 32 92 19. Extra compensation will not be made for additional seeding beyond all limits of construction as defined in applicable section.

Payment: Seeding and grading will be paid at the contract unit price per square yard for temporary seeding as described in Seeding, Section 32 92 19. No compensation will be made for reseeding, if required.

15. Other: Other items shall be paid for as stated in the Proposal.**SECTION II – SPECIALIZED UTILITY CONSTRUCTION****II.A ENCASEMENT PIPING****1. Encasement Pipe (Bored):**

Measurement: Steel casing pipe of the diameter and carrier type specified will be measured by the linear feet of steel casing pipe installed.

Payment: Steel casing pipe will be paid for at the contract unit prices per linear foot per diameter per thickness for steel casing pipe bored and shall include any and all excavation, including the boring pit, any backfill, dewatering, etc., complete in place. However, the bore shall be paid one time on a linear foot basis and no extra compensation will be paid for failures and the subsequent withdrawal and re-jacking attempts. Lines either off on grade or alignment shall be rejected or corrected in a manner approved by the Authority. Carrier pipe shall be paid for separately.

Encasement of water or sewer lines by the dry bore and jacking method shall include any and all excavation, including the boring pit, any backfill, the encasement pipe, bore, jacking, spiders, drain pipe, french drain, the end seals, dewatering, clean up, restoration and any other work required for a complete in place installation.

2. Encasement Pipe (Open Cut):

Measurement: Steel casing pipe of the wall thickness and diameter specified will be measured by the linear feet of steel casing pipe installed.

Payment: Steel casing pipe will be paid for at the contract unit prices per linear foot per diameter per thickness for steel casing pipe installed by the open cut method, complete in place. Carrier pipe shall be paid for separately.

Encasement of water or sewer lines by the open cut method shall include any and all excavation, any backfill, the encasement pipe, spiders, drain pipe, french drain, the end seals, dewatering, clean up, restoration and any other work required for a complete in place installation.

3. Bore Setup:

Measurement: Bore set-ups will be paid for on an each basis.

Payment: Bore set-up will be measured for each type indicated and paid for at the contract price per each. Such price shall be full compensation for all excavation, dewatering, sheeting and shoring, backfill with suitable material, compaction, disposal of surplus or unsuitable material, and restoration of property, and for all labor, tools, equipment and incidentals necessary to complete the preparation and finishing work for the boring or attempted boring.

II.B DIRECTIONAL DRILLING AND REHABILITATION**1. Directional Drilling (Horizontal) Tunneling:**

Measurement: Directional Drilling will be measured shall be made along the horizontal centerline of the pipe installed as shown on the plans. (The Contractor shall include in the Contract Unit Price its allowance for horizontal deflection, vertical deflection and all wastage).

Payment: Directional Drilling will be paid installed pipe will be at the Contract Unit Price shown for each respective pipe size and shall be full compensation for the item of work completed, including project planning

and shop drawings; horizontal directional drilling, laying and jointing pipe; locate wire system; pressure and leakage testing; swabbing, flushing, potable water (if required); and disinfection (potable and raw water mains only) and dechlorination (if necessary); protecting existing structures, utilities and property both public and private; cleaning up the site; furnishing all material, labor, tools, and equipment; and all incidental and related work required to complete the installation including entry/back reaming pits, dewatering, as-builts, placing and removing all traffic signs and barriers, maintaining traffic, and site preparation.

Contractor shall be responsible for removal and disposal of drill fluid breakouts. Damage to roadways; existing utilities, property both public and private occurring due to the work shall require complete restoration to the satisfaction of the Authority. No separate payment will be made for cleanup, or restoration due to damage, and all associated costs shall be borne by the Contractor.

2. Rehab/Lining of Sanitary Sewers:

Measurement: Rehab/lining of existing sanitary sewer lines will be measured on a per foot basis of each size of line.

Payment: Rehab/lining of existing sanitary sewer lines (installation of a flexible liner) will be paid for at the contract unit price per foot of each size line by the cured-in-place pipe process or folded and formed process. Price shall include all material, equipment, and labor, including bypass pumping, pre-insertion cleaning and television inspection, insertion and curing of liner, sealing liner at manholes, testing, and final television inspection for a complete in place lining. Price does not include point repairs or repairs to manholes.

3. Manhole Rehabilitation: Interior Sealant

Measurement: Rehabilitation of existing manholes will be measured on a per vertical foot basis per specified manhole diameter.

Payment: Rehabilitation of existing manholes will be paid for at the contract unit price per foot of each diameter manhole. Price shall include all material, equipment, and labor to clean and prepare manhole, apply and cure coating, including all dewatering and bypass pumping required. See Section Common Work Results for Utilities, Manhole 2.5.10 Interior Sealant.

4. Removal of Asbestos Cement Pipe:

Measurement: Removal of asbestos cement pipe will be measured based on the following definition: when the amount of pipe to be removed is less than 12 feet, the item will be measured on an each basis. When the amount removed exceeds 12 feet, the item will be measured on an each basis plus the bid price per linear foot for pipe removed in excess of 12 feet.

Payment: Removal of asbestos cement pipe will be paid for at the contract unit price per each up to 12 feet of removal then after 12 feet, an additional payment will be made on top of the each basis, per linear foot and shall include all labor, materials, and equipment to excavate, remove and properly disposal of pipe.

5. Manhole Abandonment:

Measurement: Manhole abandonment will be measured on an each basis.

Payment: Manhole abandonment will be paid for at the contract unit price per each manhole abandoned. Abandonment shall be in place and include removal and disposal of all portions of the manhole to four feet below grade.

SECTION III – EXTRA WORK

1. Traffic Control:

Measurement: Barricades and Barrels will be measured on an each basis per day. Flaggers, Pilot Trucks and other equipment and manpower necessary will be measured on an hourly basis.

Payment: Flaggers, Barricades, Lighted Barrels, Pilot Trucks, and other equipment or manpower will be paid for at the contract unit price as determined by the approved traffic control plan and shall include all material, labor, and equipment necessary for a complete installation. The price shall also include removal of these items. All other traffic control items, devices and measures including flagmen are not a pay item and shall be considered incidental to other bid items.

2. **Other:** Other items shall be paid for as stated in the Proposal.

SECTION IV – ON-CALL EMERGENCY AND AFTER-HOURS WORK

1. On-call emergency and after-hours work shall be paid for similarly to Extra Work, and shall include any costs associated with performing the work upon limited notice.

END OF SECTION 01 22 00 – MEASUREMENT AND PAYMENT

SECTION 01001 - BASIC REQUIREMENTS**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Summary of Work.
- B. Limits of Work area.
- C. Construction permits and easements.
- D. Work sequence.
- E. Schedule of values.
- F. Applications for payment.
- G. Change procedures.
- H. Coordination.
- I. Field engineering.
- J. Preconstruction conference.
- K. Progress meetings.
- L. Submittals.
- M. Quality control; inspections and tests.
- N. Material and equipment.
- O. Substitutions.
- P. Pre-construction/Post-construction Video

1.02 RELATED SECTIONS

- A. General Conditions
 - 1. Article 2
 - a. Paragraphs 2.03.A.3 and 2.05: Schedule of Values.
 - b. Paragraph 2.04: Preconstruction Conference.
 - 2. Article 4
 - a. Paragraph 4.03: Reference Points.
 - b. Paragraph 4.04: Progress Schedule.
 - 3. Article 5
 - a. Paragraph 5.01: Availability of Lands.
 - b. Paragraph 5.02: Use of Site and Other Areas.
 - 4. Article 7
 - a. Paragraph 7.02: Labor; Work Hours (Layout of Work).
 - b. Paragraph 7.03: Services, Materials, and Equipment.

- c. Paragraph 7.04: "Or Equals"
 - d. Paragraph 7.05: Substitutes
 - e. Paragraph 7.06.J: Coordination of Subcontractor Work.
 - f. Paragraph 7.08: Permits.
 - g. Paragraph 7.12.A: Storage of Materials and Equipment.
 - h. Paragraph 7.16.A: Shop Drawings and Samples.
 - i. Paragraph 7.16.B: Submittal Procedures.
- 5. Article 8
 - a. Paragraph 8.01: Other Work at the Site.
- 6. Article 10
 - a. Paragraph 10.06: Determinations for Unit Price Work.
- 7. Article 11
 - a. Paragraph 11.01: Cost of Work.
 - b. Paragraph 11.02: Authorized Changes in Work.
 - c. Paragraph 11.03: Unit Price Work..
 - d. Paragraph 11.04: Change of Contract Price.
 - e. Paragraph 11.05: Change of Contract Times.
 - f. Paragraph 11.07: Execution of Change Orders.
- 8. Article 14
 - a. Paragraph 14.02: Tests and Inspections.
 - b. Paragraph 14.05: Uncovering Work.
- 9. Article 15
 - a. Paragraph 15.01: Progress Payments
 - b. Paragraph 15.02: Contractor's Warranty of Title.
- B. Supplementary Conditions - Refer to the appropriate "SC" paragraphs that supplement or modify the above numbered paragraphs of the General Conditions.
- C. Agreement between Owner and Contractor – Refer to Document 00 52 13 for additional information.

1.03 SUMMARY OF WORK

- A. Work Covered by Contract Documents
 - 1. Perform Work under a unit price contract with Owner.
 - 2. Work of this Contract is identified on the Drawings and in the Contract Documents.
 - 3. Work not specifically identified on the Drawings, but required in the Contract Documents, shall be performed as specified.

1.04 LIMITS OF WORK AREA

- A. Confine construction operations within the Easement Limits as provided. Storage of equipment and materials, or erection and use of sheds outside of the Contract Limits, if such areas are the property of Owner, shall be used only with Owner's approval. Such storage or temporary structures, even within the Contract Limits, shall be confined to Owner's property and shall not be placed on properties designated as easements or rights-of-way.

1.05 CONSTRUCTION PERMITS AND EASEMENTS

- A. Owner shall post bond for VDOT Land Use Permit. Contractors shall obtain and pay for all necessary permits from those authorities or agencies having jurisdiction over land areas, utilities, or structures

which are located within the Contract Limits and which will be occupied, encountered, used, or temporarily interrupted by Contractor's operations.

- B. When construction permits are accompanied by regulations or requirements issued by a particular authority or agency, it shall be Contractor's responsibility to familiarize himself and comply with such regulations or requirements as they apply to his operations on this project.
- C. Permanent and temporary easements or rights-of-way across private property, which are shown or defined as work areas within the Contract Limits, will be obtained by Owner. Where Contractor's Work requires his entry into easement areas to investigate, alter, or replace existing water mains, water services, sewer mains, sewer laterals, and their associated structures, Owner will provide information on such easements and means of access thereto.

1.07 APPLICATIONS FOR PAYMENT

- A. Submit three copies of each application on forms furnished in Contract Documents.
- B. Content and Format - Certification by Contractor must accompany each application.
- C. Payment Period - Monthly
- D. Use Document 00 62 76 – Application for Payment
- E. Attach required documents and Contractor's back-up data, when indicated.
- F. Follow procedures outlined in Article 15 of Standard General Conditions and Supplementary Conditions and Article 6 – Payment Procedures in Section 00 52 13. Agreement between Owner and Contractor.
- G. Provide 24 photographs with a photo CD labeled to identify location and subject(s) of photo and to show progress of work during pay request period.
- H. Provide updated progress schedule, which highlights any portion of work behind schedule and describes remedial actions taken or planned to restore satisfactory progress.

1.08 CHANGE PROCEDURES

- A. The Engineer will advise of minor changes in the Work not involving an adjustment of Contract Price or Contract Time by issuing supplemental instructions in a Field Order.
- B. The Engineer/ Owner may issue a Proposal Request or Notice of Change which includes a detailed description of a proposed change with supplementary or revised Drawings and Specifications, a change in Contract Time for executing the change and the period of time during which the requested price will be considered valid. Contractor shall prepare and submit an estimate within 7 days.
- C. Unit Price Change Order - For pre-determined unit prices and quantities, the Change Order will be executed on a fixed unit price basis. For unit costs or quantities of units of Work that are not pre-determined, execute Work under a Work Change Directive. Changes in Contract Price or Contract Time will be computed as specified for Time and Material Change Order.
- D. Work Change Directive –Engineer may issue a directive, Work Directive Change in Document 00 63 49 signed by the Owner, instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order. Document will describe changes in the Work, and designate method of determining any change in Contract Price or Contract Time. Promptly execute the change.
- E. Time and Material Change Order - Submit itemized account and supporting data after completion of change, within time limits indicated in the Conditions of the Contract. Engineer will determine the change allowable in Contract Price and Contract Time as provided in the Contract Documents.

- F. Maintain detailed records of Work done on Time and Material basis. Provide full information required for evaluation of proposed changes, and to substantiate costs for changes in the Work.
- G. Change Order Forms – Use Change Order in Document 00 63 63.
- H. Execution of Change Orders –Engineer will issue Change Orders for signatures of parties in the following order: Engineer, Contractor, Owner.

1.09 COORDINATION

- A. Coordinate scheduled Work sequences and related operations beforehand with appropriate local, county, and state officials and agencies including affected property owners, when project is to be located in or adjacent to the public right-of-way.
- B. Coordinate scheduling, submittals, and Work of the various Sections of Specifications to assure efficient and orderly sequence of installation of interdependent construction elements.
- C. Coordinate completion and clean up of Work of separate Sections in preparation for Substantial Completion and for portions of Work designated for Owner's partial occupancy.
- D. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

1.10 FIELD ENGINEERING

- A. Control datum for survey work is that provided by Engineer as shown on the Drawings.
- B. Engineer has provided control points along route of sewer main.
- C. Contractor shall provide field engineering services as follows:
 - 1. Protect all control and reference points. Accurately replace any such point that is damaged or moved.
 - 2. Provide construction stakeout of sewer line no less frequently than every 200 feet, except, where the alignment deflects more than 6 degrees, stakeout will be required every 50' and at each bend.

1.11 PRE-CONSTRUCTION CONFERENCE

- A. Engineer will schedule a conference after Effective Date of Agreement. Attendance required: Owner, Engineer, Contractor, Contractor's Job Superintendent, Major Subcontractors, and Representatives of Utility Companies affected by the work.
- B. Agenda
 - 1. Distribution of extra sets of Contract Documents.
 - 2. Submission of list of Subcontractors, list of products, and Progress Schedule.
 - 3. Designation of personnel representing the parties in Contract.
 - 4. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders and Contract closeout procedures.
 - 5. Scheduling.
 - 6. Scheduling activities of testing laboratory.

7. Requirements of regulatory agencies.
 8. Use of premises by Owner and Contractor.
 9. Temporary facilities to be provided by Owner; and by Contractor.
 10. Procedures for testing.
 11. Procedures for maintaining record documents.
 12. Maintenance of vehicular traffic flagmen, etc.
 13. Periodic cleanup of site.
 14. Notification of utilities' owners.
 15. Other business relating to the work.
- C. Engineer will record minutes and distribute copies within five days after meeting to participants, and to those affected by decisions made.

1.12 PROGRESS MEETINGS

- A. Engineer will schedule and administer meetings throughout progress of the Work at regular intervals during the second and fourth week of each month or of shorter intervals as necessary.
- B. Engineer will make arrangements for meetings, prepare agenda with copies for participants, preside at meetings, record minutes, and distribute copies within two days to participants, and those affected by decisions made.
- C. Attendance Required - Owner, Engineer, Contractor's Job Superintendent, major subcontractors and suppliers, other parties as appropriate to agenda topics for each meeting.
- D. Agenda
1. Review minutes of previous meetings.
 2. Review of Work progress.
 3. Field observations, problems, and decisions.
 4. Identification of problems that impede planned progress.
 5. Review of submittals schedule and status of submittals.
 6. Review of off-site fabrication and delivery schedules.
 7. Maintenance of progress schedule.
 8. Corrective measures to regain projected schedules.
 9. Planned progress during succeeding work period.
 10. Coordination of projected progress.
 11. Maintenance of quality and work standards.
 12. Effect of proposed changes on progress schedule and coordination.

13. Other business relating to Work.

1.13 SUBMITTALS

A. Procedures

1. Transmit each required submittal using Engineer accepted form.
2. Sequentially number the transmittal forms. Re-submittals shall have original number with sequential alphabetic suffix.
3. Identify Project, Contractor, subcontractor or supplier; pertinent Drawing sheet and detail number(s), and Specification Section number, as appropriate.
4. Apply Contractor's stamp, signed or initialed certifying that review, verification of products required, field dimensions, adjacent construction Work, and coordination of information, is in accordance with the requirements of the Work and Contract Documents. Stamp shall show the following information:
 1. Shop Submittal Number_____
 2. Deviations: None_____ ; As Listed_____
 3. Reference Specification Number_____
 4. Reference Drawing Number_____
 5. Space Requirement: As Designed_____ Different
As Listed_____
 6. Representation is made to the Owner and Engineer that the Contractor has determined and verified all field measurements and quantities, field construction criteria, materials, catalog numbers and similar data, the he has reviewed and coordinated the information in each shop drawing with the requirements of the work and the Contract Documents, and hereby approves this submittal.
Contractor_____
Signature_____
Date_____
5. Schedule submittals to expedite the Project, and deliver to Engineer at business address. Coordinate submission of related items.
6. Identify deviations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work. Identify space requirements that differ from those designed or shown on the Contract Documents.
7. Provide space for Contractor and Engineer review stamps.
8. Revise and resubmit submittals as required, identify all changes made since previous submittal.
9. Distribute copies of reviewed submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions.

B. Construction Progress Schedule

1. Submit preliminary progress schedule in duplicate within 10 days after effective date of Owner-Contractor Agreement for Engineer review.
2. Submit finalized progress schedule at least 10 days before submission of the first Application for Payment.
3. Submit revised schedules at each progress meeting, identifying changes since previous version.

4. Prepare horizontal bar chart with separate entry for each major section of Work. Include Work Sequence requirements, if any. Identify first workday of each week.
 5. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate the early and late start, early and late finish, float dates, and duration.
 6. Indicate estimated percentage of completion for each item of Work at each progress meeting.
 7. Submit revised schedules with each application for payment.
- C. Product Data
1. Submit five copies to Engineer, three copies of which will be retained by the Engineer.
 2. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information unique to this Project.
 3. After review and approval by Engineer, distribute copies in accordance with Article on Submittals (above) and preserve copies for Record Documents purposes.
- D. Shop Drawings
1. Submit five opaque reproductions to Engineer, three copies of which will be retained by the Engineer.
 2. After review and approval by Engineer, distribute copies in accordance with Article on Submittals (above) and for Record Documents purposes.
- F. Pre-construction/Post Construction Video
1. Take pre-construction and post-construction video of physical features on private and public property that may be disturbed by Contractor's operations:
 - a. Take photographs just prior to start of construction along entire contract area.
 - b. Camera angle, direction, and duration will be dictated by range and nature of physical features to be recorded.
 - c. Provide minimum of 2 videotapes to Engineer.

1.14 QUALITY CONTROL; INSPECTIONS AND TESTS

- A. Quality Assurance/Control of Installation
1. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
 2. Comply fully with manufacturers' instructions, including each step in sequence.
 3. Should manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
 4. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

5. Perform Work by persons qualified to produce workmanship of specified quality.
 6. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.
 7. Furnish field samples at the site as required by individual Specification Sections.
 8. Acceptable samples represent a quality level for the Work.
- B. Testing by Contractor
1. Furnish necessary labor, facilities, tools, equipment, compressed air, water, fuels, lubricants, and electric power for tests.
 2. Pay all costs associated with such tests.

1.15 MATERIAL AND EQUIPMENT

- A. Products - Means new material, machinery, components, equipment, fixtures, and systems forming the Work. Does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components, if required by the Contract Documents, for reuse.
- B. Transportation and Handling
1. Arrange deliveries of products in accordance with construction progress schedules. Allow time for inspection prior to installation.
 2. Coordinate deliveries to avoid conflict with work, conditions at site, and availability of personnel and handling equipment.
 3. Transport products by methods to avoid product damage; deliver in undamaged condition in manufacturer's unopened containers or packaging, dry, with identifying labels intact and legible.
 4. Provide equipment and personnel to handle products by methods to prevent soiling or damage. Protect sensitive equipment and finishes against impact, abrasion and other damage.
 5. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.
- C. Storage and Protection
1. Store and protect products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight, climate controlled enclosures.
 2. For exterior storage of fabricated products, place on sloped supports, above ground.
 3. Provide off-site storage and protection when site does not permit on-site storage or protection.
 4. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.
 5. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.

6. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
7. Arrange storage of products to permit access for inspection. Periodically inspect to assure products are undamaged and are maintained under specified conditions.

1.16 SUBSTITUTIONS

- A. Engineer will consider requests for substitute or “or equal” items after the Effective Date of the Owner-Contractor Agreement.
- B. Substitutions may be considered when a product becomes unavailable through no fault of the Contractor. Furnish evidence that product is unavailable.
- C. Document each request with complete data substantiating compliance of proposed substitution with Contract Documents.
- D. A request constitutes a representation that the Contractor:
 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
 2. Will provide the same warranty for the substitution as for the specified product.
 3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
 4. Waives claims for additional costs or time extension that may subsequently become apparent.
 5. Will reimburse Owner the costs incurred by Owner for review and any subsequent redesign services by Engineer, including Engineer’s revisions to the Contract Documents, and Engineer’s assistance in connection with review by authorities when re-approval is required, if Engineer determines that the item of material or equipment proposed by Contractor is a substitute item.
- E. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.
- F. Submittal Procedures
 1. Submit to Engineer four copies of request for substitution for consideration, limiting each request to one proposed substitution.
 2. Each request shall basically conform to the procedures outlined in the Article covering submittals of this Section.
 3. Include shop drawings, product data, and certified test results attesting to the proposed product equivalence.
 4. The Engineer will notify Contractor, in writing, of decision to accept or reject request.

PART 2 PRODUCTS - Not used.

PART 3 EXECUTION - Not used.

END OF DOCUMENT 01001- BASIC REQUIREMENTS

SECTION 01003 - TEMPORARY FACILITIES AND CONTROLS**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Temporary Utilities - sanitary facilities.
- B. Temporary Controls - Barriers, protection of the Work, water control and Pollution Controls.
- C. Construction Facilities - progress cleaning, removal of utilities, facilities and controls.

1.02 RELATED SECTIONS

- A. General Conditions
 - 1. Article 5
 - a. Paragraph 5.01: Availability of Lands.
 - b. Paragraph 5.02.A: Limitation on Use of Site and Other Areas.
 - c. Paragraph 5.02.B: Removal of Debris During Performance of the Work.
 - d. Paragraph 5.02.C: Cleaning.
 - 2. Article 7
 - a. Paragraph 7.03.A: Providing Temporary Facilities.
- B. Supplementary Conditions - Refer to the appropriate "SC" paragraphs which supplement or modify the above numbered paragraphs of the General Conditions.
- C. Section 01005 - CLOSEOUT: Final Cleanup.

1.03 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required sanitary facilities and enclosures for use by all persons employed at the site.
- B. Remove facilities from site at end of construction.
- C. Facilities shall be maintained in conformance with applicable State Regulations and Local ordinances. Contents shall be removed and disposed of in satisfactory manner as occasion requires.
- D. Enforce sanitary regulations amongst employees and take precautions against infectious diseases as deemed necessary. Isolate infected employee(s) and arrange for immediate removal of such person(s) from site.

1.04 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, and to protect existing facilities and adjacent properties from damage from construction operations.
- B. Provide barricades required by governing authorities for public rights-of-way.
- C. Provide protection for plant life designated to remain. Replace damaged plant life.
- D. Protect vehicular traffic, stored materials, site and structures from damage.
- E. Supplement barriers with suitable signs, railings, fencing and night lights, as necessary.

1.05 WATER CONTROL

- A. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment.
- B. Protect site from puddling or running water. Provide water barriers as required to protect site from soil erosion and damage to cultivated vegetation, plants, trees, and shrubs.

1.06 PROTECTION OF INSTALLED WORK

- A. Protect installed Work from damage and deterioration due to floods driving rain, wind, snow storms or freezing temperatures; provide special protection where specified in individual specification sections.
- B. Provide temporary and removable protection for installed Products. Control activity in immediate work area to minimize damage.
- C. Prohibit traffic over landscaped areas.
- D. Owner reserves right to order that additional protective measures be taken beyond those proposed by Contractor, to safeguard the Work.

1.07 PARKING

- A. Arrange for temporary parking areas to accommodate all construction personnel involved with project.
- B. When site space is not adequate, provide additional off-site parking.
- C. Do not allow vehicle parking on existing pavement.

1.08 MAINTENANCE OF TRAFFIC

- A. Maintain and regulate traffic within Contract Limits in accordance with applicable State, County, and Local Regulations.
- B. Conduct operations so as to maintain access for vehicular and pedestrian traffic to and from properties adjoining or adjacent to those streets and roads affected by construction activities, and to subject the public to a minimum of delay and inconvenience.
- C. Erect suitable signs and barricades including warning lights at night, to alert traveling public. Provide watchmen and flagmen as necessary to maintain and regulate traffic.
- D. Plan operations so that access to any dwelling, building or hospital is assured in case of fire or other emergency. Review with and obtain approval from local fire and police departments regarding anticipated detours and obstructions to traffic flow which could hinder passage of fire apparatus, ambulance or otherwise.
- E. Not more than one block nor more than one cross-street intersection may be torn up, obstructed or closed to travel at one time without permission of the Owner. If the project involves pipe-laying operations, and if more than one pipe-laying crew is operating at separate locations in the work area, this requirement shall apply to each crew's operation, but shall be consistent with traffic maintenance procedures required by the Owner.
- F. When the normal route of vehicular access to any property must be temporarily obstructed, notify the affected property owner at least 24 hours in advance of intended operations at the location. The route shall subsequently be re-opened not later than one day following the start of construction at that location, unless special arrangements have been made with property owner. Vehicular access to hospitals, Fire and Police Departments must be provided at all times.

1.09 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris and rubbish; collect and remove same from site daily and dispose off-site.
- B. Store unused tools and equipment at Contractor's yard or base of operations.

1.10 POLLUTION CONTROLS

- A. Dust Control
 - 1. Execute Work by methods to minimize raising dust from construction operations.
 - 2. Provide positive means to prevent air-borne dust from dispersing into atmosphere.
- B. Erosion and Sediment Control
 - 1. Plan and execute construction by methods to control surface drainage from cuts and fills, from borrow and waste disposal areas.
 - 2. Minimize amount of bare soil exposed at one time.
 - 3. Provide temporary measures such as berms, dikes, and drains, to regulate water flow and prevent soil erosion.
 - 4. Periodically inspect earthwork in disturbed areas to detect evidence of erosion and sedimentation; promptly apply corrective measures.
- C. Noise Control
 - 1. All construction equipment and tools exhibiting potential noise nuisance shall be provided with noise muffling devices.
 - 2. Confine use of equipment and tools between the hours of 7 a.m. and 5 p.m, Monday to Friday.
- D. Pollutants Control - Provide methods, means and facilities to prevent contamination of soil, water and atmosphere from discharge of noxious, toxic substances, and pollutants produced by construction operations.

1.11 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary above grade or buried utilities, equipment, facilities, materials, prior to Final Application for Payment.
- B. Remove temporary controls, barriers, enclosures, etc. in concert with completion of those segments of Work which no longer require such measures.
- C. Clean and repair damage caused by installation or use of temporary work.
- D. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

PART 2 PRODUCTS - Not used.

PART 3 EXECUTION - Not used.

END OF DOCUMENT 01003 – TEMPORARY FACILITIES AND CONTROLS

DOCUMENT 01005 - CLOSEOUT**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Closeout procedures.
- B. Final cleanup.
- C. Project record documents.

1.02 RELATED SECTIONS

- A. General Conditions
 - 1. Article 5
 - a. Paragraph 5.02.C: Cleaning.
 - 2. Article 7
 - a. Paragraph 7.11: Record Documents.
 - b. Paragraphs 7.03.B and 7.17: Warranties.
 - 3. Article 14
 - a. Paragraphs 14.03 through 14.07: Correction of Defective Work.
 - 4. Article 15
 - a. Paragraph 15.03: Substantial Completion.
 - b. Paragraph 15.04: Partial Utilization.
 - c. Paragraphs 15.05 through 15.06: Final Inspection and Final Payment.
- B. Supplementary Conditions - Refer to the appropriate "SC" paragraphs which supplement or modify the above numbered paragraphs of the General Conditions.
- C. Section 01001 - BASIC REQUIREMENTS
- D. Section 01003 - TEMPORARY FACILITIES AND CONTROLS: Removal of Utilities, Facilities and Controls.

1.03 CLOSEOUT PROCEDURES

- 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 Owner/Engineer's inspection.
- B. Correct or replace defective work in accordance with requirements of Article 14 of General Conditions.
- C. Provide submittals to Owner/Engineer that are required by governing or other authorities and Contract Documents.

Before the Certificate of Substantial Completion is issued, submit to the Owner/Engineer the following:

- 1. Test results of project components.
 - 2. Performance affidavits for equipment.
 - 3. Certification of equipment or materials in compliance with Contract Documents.
- D. Conform to procedures established by Owner/Engineer, in concert with requirements of Article 15 of General conditions and Supplementary Conditions, for final payment application, certificate of substantial completion, final inspection, release of liens, and other related documentations or conditions required by Contract Documents.

1.04 FINAL CLEAN-UP

- A. Execute final cleanup prior to final inspection.
- B. Clean site; sweep paved areas, rake clean landscaped and restored surfaces.
- C. Remove waste and surplus materials, rubbish, sheds, tools and construction facilities from the site.

1.05 PROJECT RECORD DOCUMENTS

- A. Maintain on site, one set of the following record documents; record actual revisions to the Work:
 - 1. Contract Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change orders and other modifications to the contract.
 - 5. Approved shop drawings, product data, and samples.
- B. Store record documents separate from documents used for construction.
- C. Record information concurrent with construction progress; make available for periodic examination by Engineer.
- D. Ensure that entries are complete and accurate, enabling future reference by Owner.
- E. Contract Drawings and Shop Drawings - Legibly mark in red ink or pencil to show all changes in, or directly associated with, the work of this contract. Keep entire set of drawings current on day-to-day basis. Examples of types of changes which could occur and are to be recorded:
 - 1. Change in location or elevation of manholes, meter pits, or similar underground structures.
 - 2. Change in dimensions of structures.
 - 3. Unforeseen modifications to existing structures made necessary by work requirements.
 - 4. Change in location or elevations of underground utilities installed under this Contract.
 - 5. Change in materials, such as pipe materials.
 - 6. Relocation of existing underground utilities made necessary because of interference with work under this contract.
 - 7. Change in topographical contours of finished earth and paved surfaces.
 - 8. Change in elevations of finished surfaces along route of installed underground utilities.
- F. Affix Contractor's identification stamp to each Contract Drawing, shop drawing, and on the front cover of all other documents, labeling each as "Record Documents."
- G. Submit documents to Owner/Engineer with final Application for Payment.

PART 2 PRODUCTS - Not used.**PART 3 EXECUTION - Not used.**

END OF DOCUMENT 01005 - CLOSEOUT