

**ISSUED FOR BID**

**Contract Documents & Technical Specifications**

**DACULA CITY HALL SEWER CONNECTION  
RFB XXXXX  
FOR THE CITY OF DACULA**



**August 2022**

**Prepared By:**  
***Precision Planning, Inc.***  
**Planners, Engineers, Architects & Surveyors**  
**802 East Spring Street**  
**Monroe, Georgia 30655**  
**(770) 267-8800**

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SECTION 00030

ADVERTISEMENT FOR BIDS

**DACULA CITY HALL SEWER CONNECTION**

Sealed bids will be received by the City of Dacula, Georgia, for furnishing all materials, labor, tools, equipment, and any other miscellaneous items necessary for the construction of the Dacula City Hall Sewer Connection Project in the City of Dacula, Georgia.

Bids will be received at the Dacula City Hall, 442 Harbins Road, Dacula, GA 30019 until 2:00 P.M. on Thursday, September 8, 2022. Any bid received after said time and date of bid opening will not be considered by OWNER. Bids will be publicly opened and read aloud at this time and location. All bids will be evaluated by OWNER and the project will be awarded, if it is awarded, within sixty (60) days of the bid opening.

A non-mandatory Pre-Bid Conference will be held at 2:00 P.M. on Wednesday, August 24, 2022 at the City of Dacula City Hall to discuss and clarify any questions regarding the Bid Documents.

To bid this project, Contractor **must be prequalified** and listed on the Approved Utility Contractor’s List with the Gwinnett County Department of Water Resources. If not prequalified, your bid will not be accepted.

**The Project consists of, but is not limited to the following major elements:**

**Construction of approximately 240 linear feet of 6” diameter PVC gravity sewer and service lateral, two new sewer manholes, connection to existing Gwinnett County sewer manhole, connection to existing service laterals, decommissioning an existing septic system, and site restoration.**

Time of completion for all work associated with this project shall be NINETY (90) consecutive calendar days from the date of a written "Notice to Proceed" from OWNER.

Bid Documents must be purchased from Precision Planning, Inc. for a **non-refundable** fee of \$50.00 for digital copy only. Checks shall be made payable to “Precision Planning, Inc.”. Scan and email a copy of your company check to Natalie Pifer at [861np@ppi.us](mailto:861np@ppi.us) . **Mail check to Precision Planning, Inc., 802 E Spring Street, Monroe, GA 30655.**

Contract Documents, Specifications and Drawings may be examined at the following locations:

Precision Planning, Inc. 802 East Spring Street Monroe, Georgia 30655	Precision Planning, Inc. 400 Pike Blvd Lawrenceville, GA 30046	City of Dacula 442 Harbins Road Dacula, GA 30019
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For general information regarding this project, you may contact Natalie Pifer, Precision Planning, Inc. e-mail [861np@ppi.us](mailto:861np@ppi.us).

***A list of persons who purchased Contract Documents from Precision Planning, Inc. will be available from the Engineer ONLY through e-mail, send request to Natalie Pifer [861np@ppi.us](mailto:861np@ppi.us) .***

OWNER requires a bid bond\* or a certified cashier's check in the amount of five percent (5%) of the total bid to be enclosed with the bid at the time of bid opening. Cashier's check will be made payable to the City of Dacula, Georgia.

The successful bidder will be required to furnish OWNER with Insurance, Workman's Compensation Insurance, and Performance and Payment Bonds\* in the amount of one-hundred percent (100%) of the total bid.

**Each bid must be submitted in a SEALED ENVELOPE**, addressed to the OWNER. Each sealed envelope containing a Bid must be plainly marked on the outside as, "**Bid for the Dacula City Hall Sewer Connection**" and be labeled with the **BIDDER'S State of Georgia Utility Contractor License Number**. If bid is forwarded by mail, the sealed envelope containing the Bid must be enclosed in a separate mailing envelope to the attention of the OWNER at the address previously given.

All Bids must be made out on the bid form of the type bound in the Contract Documents, in accordance with the instructions in the Information for Bidders. No interlineation, additions, or deletions shall be made in the proposal form by the BIDDER.

Any and all Bids received without the aforementioned qualification criteria enclosed, will be returned to the BIDDER.

CONTRACTORS and SUBCONTRACTORS bidding on this Project will be required to comply with all Federal, State, and local laws.

OWNER reserves the rights to waive any informalities or to reject any or all Bids, to evaluate Bids, and to accept any Bid which in its opinion may be in the best interest of the OWNER. No Bid will be rejected without just cause.

Successful Bidder will be required to perform WORK as the Prime Contractor. WORK performed by Prime Contractor shall be at a minimum 60% of the contract value.

No BIDDER may withdraw his bid within the time limit specified in the Instruction to Bidders (Section 00100).

**\* Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State of Georgia.**

This project is funded through the American Rescue Plan Act.

Trey King, Mayor  
City of Dacula

END OF SECTION 00030

SECTION 00100

INSTRUCTIONS TO BIDDERS

1. RECEIPT AND OPENING OF BIDS

The City of Dacula, Georgia (herein referred to as "OWNER"), invites Bids on forms attached hereto. All blanks must be appropriately filled in. Bids will be received by OWNER at the address stated in Section 00030. Bids will be publicly opened and read aloud by OWNER at said time and place.

OWNER may consider informal any Bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities in the Bids received, may reject any and all Bids, and may accept any Bid which is deemed most favorable. Any Bid may be withdrawn prior to the scheduled time for the opening of Bids or authorized postponement thereof. Any Bid received after the time and date specified will not be considered. No Bidder may withdraw a Bid within 60 days after the date of the opening thereof.

2. PREPARATION OF BID

Each Bid must be submitted on the prescribed Bid Form and accompanied by the following documents:

- Bid Form (Section 300)
- Partnership, Corporate or Individual Certificate (Sections 310, 320 and 330)
- Bid Bond (Section 410)
- Non-collusion Affidavit of Prime Bidder (Section 460)
- Contractor Affidavit Under OCGA §13-10-91(B)(1) (Section 462)
- Byrd Anti-Lobbying Amendment Certification (Section 490)  
(Section 490 to be completed ONLY if bid is over \$100,000.00)

The following documents will be completed after the Contract has been awarded:

- Notice of Award (Section 500)
- Agreement (Section 510)
- Certificate of Owner's Attorney (Section 540)
- Notice to Proceed (Section 560)
- Performance Bond (Section 610)
- Labor & Material Payment Bond (Section 615)

Complete sets of Bidding Documents must be used in preparing Bids; neither OWNER nor ENGINEER assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

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.

All blank spaces for unit prices, lump sum prices, and alternate bid price schedules must be filled in, in ink or typewritten, in both words and figures (in case of discrepancy, unit prices shown in words will govern), and the foregoing items must be fully completed and executed when submitted. Bids shall have original signatures, and must be submitted in a SEALED ENVELOPE bearing on the outside, the name and address of the bidder, **the BIDDER'S State of Georgia Utility Contractor License Number** and name of the project for which the Bid is submitted. The OWNER has the right to reject any bid that does not contain the above information.

**BID MODIFICATIONS WRITTEN ON THE OUTSIDE OF ENVELOPE WILL NOT BE ACCEPTED.**

3. PRE-BID SUBMITTALS

For approval of alternate material or equipment, see Section 01 33 00 Submittals.

4. CONTRACT DOCUMENTS, SPECIFICATIONS AND DRAWINGS

Bidders are advised to carefully examine the CONTRACT DOCUMENTS, Specifications, and Construction Drawings for the proposed WORK. Construction Drawings indicate the surface and underground structures likely to affect the prosecution of the WORK insofar as they have been determined, but the information indicated is not guaranteed as being correct and complete. Bidders are expected to examine the Construction Drawings and the location of the WORK, verify all information with authorities concerned, to inform themselves of all laws, ordinances and regulations of all authorities having jurisdiction, and to judge for themselves all the circumstances affecting the cost of the WORK and the time required for its completion.

The Bidder shall assume all risks concerning latent physical conditions at the site that may affect his costs, progress or performance of the work.

Bidder shall promptly give ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by ENGINEER is acceptable to Bidder.

5. SUBCONTRACTS

Bidder is specifically advised that any person, firm, or other party to whom it is proposed to award a subcontract under this Contract, must be acceptable to the OWNER.

6. TELEGRAPHIC MODIFICATIONS

**BID MODIFICATION BY TELEGRAPHIC COMMUNICATION WILL NOT BE ALLOWED.**

7. LIQUIDATED DAMAGES FOR FAILURE TO ENTER INTO CONTRACT

The successful Bidder, upon his failure or refusal to execute and deliver the Contract and required Bonds within fifteen (15) days after he has received the "Notice of Award", shall forfeit to OWNER as liquidated damages the security deposit submitted with his Bid.

8. TIME OF COMPLETION AND LIQUIDATED DAMAGES

See Agreement Section 00510 Article 3.2 and General Conditions 00700.

9. METHOD OF BIDDING

Bidders shall submit a Bid on a unit price basis for each item of Work listed in the bid form.

Unit or lump sum prices for each Bid item in the proposal shall include its pro rata share of overhead and profit so that the Base Bid price given on Bid Summary Sheet represents the total bid. Any bid not conforming to this requirement may be rejected as informal.

The correct amount bid for each unit price item is defined as the correct product of the quantity listed for the item multiplied by the unit price in words. The correct total amount bid for the complete work is defined as the correct sum total of the correct amounts bid for the individual items in the bid form.

Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.

10. QUALIFICATIONS OF BIDDER

Each Bidder must submit qualifications with Bid on the prescribed forms provided in the CONTRACT DOCUMENTS. OWNER or OWNER's Representative may make such investigations as it deems necessary to determine the ability of Bidder to perform the WORK and Bidder shall furnish to OWNER all such information and data for this purpose as OWNER may request. OWNER reserves the right to reject any Bidder if the evidence submitted by or investigation of such Bidder fails to satisfy OWNER, or that such Bidder is not properly qualified to carry out the obligations of the Contract and to complete the WORK contemplated therein within the time constraints.

Each Bidder must furnish in his qualification statement, information relative to the facilities, ability, and financial resources available for the fulfillment of the Contract. Before award is made to a Bidder who is not a resident of the State of Georgia, such Bidder shall designate a proper agent in the State of Georgia on whom service can be made in event of litigation. Conditions, limitations, or provisions attached by Bidder to the Bid may cause its rejection. Bids containing items not included in the Form of Bid will be considered irregular.

11. BID SECURITY

Each Bid must be accompanied by certified check, cashier's check, or a Bid Bond prepared on the Form of Bid Bond attached hereto, duly executed by Bidder as principal and having as Surety thereon a surety company acceptable to the OWNER, in the amount of five percent (5%) of the Bid. All bonds furnished for the project shall be countersigned by an agent who is a resident of the State of Georgia. The Power of Attorney for such signature shall be attached. Deposits accompanying Bids shall be sealed in the Bid envelope. Except for the three (3) lowest bidders, the Bid security will be returned to the bidder by regular U.S. mail within thirty (30) days after the bid opening.

The three lowest bid securities will be returned by regular U.S. mail within ten (10) days after the execution of the contract between the OWNER and the successful bidder. If no award has been made within the number of days after the date of bid opening as specified in Article 1 of this section, bidder may demand the immediate return of his bid security.



12. EXECUTION OF BID DOCUMENTS

Bids which are not signed by individuals making them shall have attached thereto a power-of-attorney evidencing authority to sign the Bid in the name of the person for whom it is signed.

Bids which are signed for a partnership shall be signed by all of the partners or by an attorney-in-fact. If a bid is signed by an attorney-in-fact, there shall be a power-of-attorney executed by the partners attached to the Bid evidencing authority to sign the Bid.

Bids which are signed for a corporation shall have the correct corporate name thereof and the signature of the President or other authorized officer of the corporation manually written below the corporate name following the wording "By \_\_\_\_\_". Such Bids shall also carry the corporate seal of said corporation.

Bidder shall furnish all data required by these CONTRACT DOCUMENTS. Failure to do so may result in the Bid being declared non-responsive. Acceptance of Bidder's documentation and substantiation or Contract Award by OWNER does not relieve Bidder of Liability for nonperformance as covered in the CONTRACT DOCUMENTS, nor will Bidder be exempted from any other legal recourse OWNER may elect to pursue.

13. POWER-OF-ATTORNEY

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

14. METHOD OF AWARD

Upon careful review and consideration of the Qualifications and Bid Summary (including all alternate prices), OWNER will award Contract to Prime/General CONTRACTOR deemed the lowest responsible bidder as required by Georgia law. Alternates may be awarded at the discretion of OWNER. Bidder to whom the award is made will be notified at the earliest possible date. OWNER reserves the right to reject any and all bids and to waive any informalities in bids received whenever such rejection or waiver is in OWNER's best interest. A responsive Bidder shall be one who submits his bid in the proper form as called for in the CONTRACT DOCUMENTS, and who binds himself on behalf of this Bid to OWNER with the proper Bid Bond or certified check completed and attached, and who properly completes all forms required to be completed and submitted at the time of bidding.

A responsible Bidder shall be one who is pre-approved under the Gwinnett Annual Prequalification of Contractors for Installation, Replacement and /or Relocation of Gravity Sanitary Sewer Mains, Force Mains and Appurtenances, Sub-Section 1 as indicated in the Advertisement for Bids.

15. ADDENDA AND INTERPRETATIONS

No interpretation of the meaning of the plans, specifications or other bid documents will be made to any Bidder orally.

All requests for such interpretation should be directed by email to Precision Planning, Inc. to Natalie Pifer at [861np@ppi.us](mailto:861np@ppi.us). To be given consideration, must be received at least five (5) days prior to the date fixed for the opening of bids. Every interpretation made to a Bidder will be in the form of an Addendum to the CONTRACT DOCUMENTS, and when issued, will be on file in the office of the ENGINEER at least two (2) days before bids are opened. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the specifications which, if issued, will be emailed to all prospective Bidders (at the respective addresses furnished for such purposes), not later than three (3) days prior to the date fixed for the opening of the Bids. Failure of any Bidder to receive any such addendum or interpretation shall not relieve such Bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the CONTRACT DOCUMENTS. **Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be made without legal effect.**

Addenda may be issued to clarify, correct, or change the CONTRACT DOCUMENTS as deemed advisable by OWNER or ENGINEER.

16. CONDITIONS OF WORK

Reference Supplementary General Provisions Section 00800, Articles 3.4 and 3.12.

17. SITE CONDITIONS

OWNER does not make any representation as to the soil conditions to be encountered or as to foundation materials. The CONTRACTOR must assume all risk as to the nature and behavior of the soil which may be encountered or of soil, or water, or rock, which underlies the Work or is adjacent thereto, including any difficulties that may be due to quicksand or other unfavorable conditions that may be encountered in the WORK, whether apparent upon surface inspection or disclosed only in the process of carrying forward the WORK. Reference Section 00800, Article 3.4.

18. INDEMNIFICATION

The CONTRACTOR shall indemnify and hold harmless the OWNER and CONSULTING ENGINEER (also known as Precision Planning, Inc.) and their agents and employees from and against all claims, damages, losses and expenses, including but not limited to attorney's fees, arising out of or resulting from the performance of the WORK, provided that any such claim, damage, loss, expense or attorney's fees is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property including the loss of use resulting therefrom, and is caused in whole or in part by any negligent act or omission of the CONTRACTOR, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not the negligent act is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this Clause. In any and all claims against the OWNER or the CONSULTING ENGINEER (Precision Planning, Inc.) or any of their agents or employees, by any employee of the CONTRACTOR, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation set forth in this paragraph shall not be limited in any way by any limitation on the amount or

type of damages, compensation or benefits payable by or for the CONTRACTOR or any Subcontractor under workers' or workman's compensation acts, disability benefit acts or other employee benefit acts.

19. START OF WORK

Reference Section 00800, Article 3.2.

20. ADDITIONAL WORK NOT INCLUDED IN THE CONTRACT

Reference Section 00800, Article 3.7.

21. CONTRACTOR'S AVAILABILITY

The CONTRACTOR shall have a responsible representative on call at all times. The name and phone number of the representative shall be given to the OWNER and ENGINEER at the pre-construction conference. The CONTRACTOR will also maintain a crew with the necessary tools and equipment available on call after normal working hours, on weekends, during inclement weather, or other times when work is not in progress to perform any necessary emergency repair work which may occur as a result of the work under his contract. All costs for emergency repair shall be at the CONTRACTOR's expense and shall be factored into the bid price. In the opinion of the OWNER, negligence on the part of the CONTRACTOR to satisfy such situations will be just cause for the OWNER to take whatever action necessary to remedy the situation. All costs incurred by the OWNER to remedy such situation will be backcharged to the CONTRACTOR.

22. CONSTRUCTION CLEARING

Whole clearing of construction rights-of-way, easements, or construction sites will not be allowed. Clearing shall be minimized, and the CONTRACTOR shall make every effort to save trees, shrubs and bushes that are within the construction limits. Timber which is cut shall remain the property of the land owner where the cutting occurred.

All trees within the working easements shown on the CONTRACT DOCUMENTS are property of the existing land owners. If the property owner wishes to keep the timber, the CONTRACTOR shall cut the timber in reasonable lengths and stack such timber on OWNER's property. If the property owner does not wish to keep the timber, the timber shall become the property of the CONTRACTOR and shall be removed from the site and disposed of at the CONTRACTOR's expense. All stumps, rubbish, and other material, not suitable as timber, shall be removed from the site at the CONTRACTOR's expense.

23. SANITARY FACILITIES

Reference Section 01 51 00 Temporary Utilities.

24. BUILDINGS AND SHANTIES

No shanties, camps, or buildings for the housing of men employed on the WORK shall be erected on land owned or leased by the OWNER without written permission of the OWNER. Should permission be asked and granted, the CONTRACTOR must comply with all Local and County regulations regarding the construction and maintenance of such buildings.

25. INTOXICATING LIQUORS AND DRUGS

The CONTRACTOR shall neither permit nor suffer the introduction or use of intoxicating liquor or illegal drugs upon or about the WORK specified in this Contract or upon any of the grounds occupied by him or his employees.

26. LINE AND GRADE

All construction field layout and staking shall be the responsibility of the CONTRACTOR.

27. WATER SUPPLY

All water for construction purposes, as well as the expense of having the water conveyed about the WORK, shall be provided by the CONTRACTOR and the cost of this work shall be included in the Unit or Lump Sum price bid for the various Items of the WORK to be done under this Contractor. The source, quality, and quantity of water furnished shall, at all times, be acceptable to all governing agencies and the ENGINEER.

28. WATER-TIGHT STRUCTURES

It is the intention of these specifications to provide that all concrete work be mixed, deposited, and spaded carefully with the end result of obtaining concrete which is impervious to water. Leakage through concrete structures shall be sufficient reason for requiring the CONTRACTOR to uncover or to expose any portion of the WORK for a thorough examination by the ENGINEER, after which said structure shall be repaired and again tested by the CONTRACTOR.

29. MEASURES AND WEIGHTS

To aid the ENGINEER in determining all quantities, the CONTRACTOR shall, whenever so requested, provide scales, equipment, and assistance for weighing or for measuring any of the materials.

It is understood and agreed that a "ton" shall mean the short ton of two thousand (2,000) pounds.

Weights and measures of quantity for payment will be the actual weight or actual measure, and no special or trade or so-termed customary allowances will be made, nor will any material which is lost or misplaced be included for payment.

30. ENVIRONMENTAL REQUIREMENTS

Contractor shall comply with all requirements of Clean Air and Water Acts.

A. Air Pollution

The CONTRACTOR shall be responsible for any necessary burning permits.

B. Stream Pollution

1. Conduct all work in such a manner as to prevent stream siltation.
2. No discharges for untreated or partially treated wastewater to streams are allowed.
3. Any State NPDES Stormwater Discharges Permit(s) required, including a *Notice of Intent* (NOI), is the responsibility of the CONTRACTOR.
4. Monitoring and reporting requirements associated with a NPDES Stormwater discharges Permit shall be the responsibility of the CONTRACTOR.

31. INSUFFICIENCY OF SAFETY PRECAUTIONS

Reference Section 00800, Article 3.13.

32. ELECTRIC POWER

Reference Section 01 51 0 Temporary Utilities.

33. SEWAGE AND WATER FLOWS

The CONTRACTOR shall furnish all the necessary equipment, shall take all necessary precautions and shall assume the entire cost of handling and properly disposing of any water, sewage, seepage, storm, surface, and flood flows which may be encountered at any time during the construction of the WORK and in such manner as to not endanger or damage property. The manner of providing for these flows shall meet with the approval of the ENGINEER and the entire cost of said work shall be included in the Unit or Lump Sum Prices bid for the various Sections of the WORK to be done under this Contract.

END OF SECTION 00100

SECTION 00300

BID FORM

**DACULA CITY HALL SEWER CONNECTION PROJECT**

THIS BID IS SUBMITTED TO:

City of Dacula  
442 Harbins Road  
Dacula, Georgia 30019  
(770) 963-7451

*(Hereinafter called "Owner")*

THIS BID IS SUBMITTED BY:

(Name)  
(Address)  
  
(Telephone)

*(Hereinafter called "Bidder")*

BIDDER, in compliance with the Advertisement for Bids for the construction of this project, having examined the Drawings and Specifications with related documents and the site of the proposed work, and being familiar with all of the conditions surrounding the construction of the proposed project, including the availability of materials and labor, hereby proposes to furnish all labor, materials and supplies, and to construct the project in accordance with the CONTRACT DOCUMENTS, within the time set forth therein, and at the price(s) stated below. This price(s) is to cover all expenses including overhead and profit incurred in performing the Work required under the CONTRACT DOCUMENTS, of which this proposal is a part.

**BID FORM  
DACULA CITY HALL SEWER CONNECTION**

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Est. No. of Units</u>	<u>Unit Price Bid</u>	<u>Total for Item</u>
1	Rock Removal	CY	20	_____ Dollars and Cents _____ (Unit Price in Words)	_____
2	Inlet Filter Gravel Bag	LF	30	_____ Dollars and Cents _____ (Unit Price in Words)	_____
3	Temporary Silt Fence Type 'S'(Sd1)	LF	115	_____ Dollars and Cents _____ (Unit Price in Words)	_____
4	Medium Duty Pavement Repair (Parking Area)	SY	90	_____ Dollars and Cents _____ (Unit Price in Words)	_____
5	Curb & Gutter Replacement	LF	40	_____ Dollars and Cents _____ (Unit Price in Words)	_____
6	Standard Manhole, 48" Dia., (Base, Barrels, and Cone)	EA	2	_____ Dollars and Cents _____ (Unit Price in Words)	_____
7	Additional Vertical Feet of Manhole	VF	5	_____ Dollars and Cents _____ (Unit Price in Words)	_____
8	Sanitary Sewer Piping, 6" Dia. PVC Gravity Sewer	LF	170	_____ Dollars and Cents _____ (Unit Price in Words)	_____
9	Sanitary Sewer Piping, 6" Dia. PVC Service Lateral Piping	LF	70	_____ Dollars and Cents _____ (Unit Price in Words)	_____

**BID FORM  
DACULA CITY HALL SEWER CONNECTION**

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Est. No. of Units</u>	<u>Unit Price Bid</u>	<u>Total for Item</u>
10	Sewer Clean Out	EA	1	_____ Dollars and Cents _____ (Unit Price in Words)	_____ _____ _____
11	Permanent Seeding (Ds3)	SY	110	_____ Dollars and Cents _____ (Unit Price in Words)	_____ _____ _____
12	Septic Tank Demolition	LS	1	_____ Dollars and Cents _____ (Unit Price in Words)	_____ _____ _____
<b><u>Extra Work, if Authorized by the Owner</u></b>					
13	Additional Bedding	TN	30	_____ Dollars and Cents _____ (Unit Price in Words)	_____ _____ _____
14	Graded Aggregate Base (GAB)_ Backfill	TN	80	_____ Dollars and Cents _____ (Unit Price in Words)	_____ _____ _____
15	Sodding (Ds4)	SY	110	_____ Dollars and Cents _____ (Unit Price in Words)	_____ _____ _____

**TOTAL AMOUNT BASE BID**

**Dollars & Cents (\$ \_\_\_\_\_)**

**Price in Words: \_\_\_\_\_**

**NOTE: Amounts shall be shown in words and figures; the amount written in words shall take precedence.**



BIDDER hereby agrees to commence work under this contract on or before a date to be specified in a written "Notice to Proceed" from the OWNER and to fully complete WORK within a total construction time of ninety (90) consecutive calendar days of the date specified in this "Notice to Proceed".

BIDDER acknowledges receipt of the following addenda:

Addendum No.	Date Received

BIDDER agrees to perform all of the construction of the project complete with appurtenances and accessory work described in the Specifications and shown on the Drawings for the above bid form price(s).

The above bid form price(s) shall include all labor, materials, bailing, shoring, removal, overhead, profit, insurance, etc., to cover the finished work of the several kinds called for.

BIDDER understands that OWNER reserves the right to reject any or all bids and to waive any informalities in the bidding.

BIDDER agrees that his bid shall be good and may not be withdrawn for a period of sixty (60) calendar days after the scheduled closing time for receiving bids.

Upon receipt of the written notice of the acceptance of this bid, BIDDER will execute the formal Contract attached within ten (10) days and deliver a surety bond or bonds, as required by the General Conditions. The bid security attached in the sum of five (5%) percent of the total bid is to become the property of the OWNER in the event the Contract and bond are not executed within the time set forth, as liquidated damages for the delay and additional expense to the OWNER caused thereby.

Respectfully Submitted:                      Name: \_\_\_\_\_

    Address: \_\_\_\_\_

    Phone No.: \_\_\_\_\_

    FEDERAL TAX NO. OR  
SOCIAL SECURITY NO.: \_\_\_\_\_

    Signature of Principal: \_\_\_\_\_

    Title: \_\_\_\_\_

    Date: \_\_\_\_\_

    Telephone: \_\_\_\_\_

ATTEST:

    Signature: \_\_\_\_\_

Corporate Secretary/Partner/Notary

(SEAL)

    Name: \_\_\_\_\_

(Please type)

**NOTE: Attest for a corporation must be by the corporate secretary; for a partnership by another partner; for an individual by a Notary.**

END OF SECTION 00300

SECTION 00310

PARTNERSHIP CERTIFICATE

STATE OF }  
COUNTY OF }SS  
}

On this \_\_\_ day of \_\_\_\_\_, 2022, before me personally appeared \_\_\_\_\_  
\_\_\_\_\_ known to me to be the person who executed the  
above instrument, who, being by first duly sworn, did depose and say that he is a general partner in the firm of  
\_\_\_\_\_ and that firm consists of himself and  
\_\_\_\_\_  
and that he executed the foregoing instrument on behalf of said firm for the uses and purposes stated therein,  
and that no one except the above named members of the firm have any financial interest whatsoever in said  
proposed contract.

\_\_\_\_\_  
PARTNER

\_\_\_\_\_  
PARTNER

\_\_\_\_\_  
PARTNER

\_\_\_\_\_  
PARTNER

Subscribed and sworn to before me, this \_\_\_ day of \_\_\_\_\_, 2015.

\_\_\_\_\_  
NOTARY PUBLIC

(SEAL)

My Commission Expires:

\_\_\_\_\_ (Date)

NOTE: If only one partner signs, a power of attorney executed by all other partners authorizing him to act in  
the name of the Company must be attached, otherwise, all partners must sign.

END OF SECTION 00310

SECTION 00320

CORPORATE CERTIFICATE

I, \_\_\_\_\_, certify that I am the Secretary of the Corporation named as CONTRACTOR in the foregoing bid; that \_\_\_\_\_, who signed said bid in behalf of the CONTRACTOR was then \_\_\_\_\_ of said Corporation; that said authority was duly signed for and in behalf of said corporation by authority of its Board of Directors, and is within the scope of its corporate powers; that said Corporation is organized under the laws of the State of \_\_\_\_\_.

This \_\_\_ day of \_\_\_\_\_, 2022

---

CORPORATE SECRETARY

(SEAL)

END OF SECTION 00320

SECTION 00330

INDIVIDUAL CERTIFICATE

STATE OF                    }  
                                  }SS  
COUNTY OF                }

On this \_\_\_\_ day of \_\_\_\_\_, 2022, before me personally came and appeared \_\_\_\_\_

\_\_\_\_\_

to me known, and known to me to the person described in and who executed the foregoing instrument and acknowledged that he executed the same.

\_\_\_\_\_  
NOTARY PUBLIC

(SEAL)

My Commission Expires

\_\_\_\_\_  
(Date)

(SEAL)

END OF SECTION 00330

SECTION 00410

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, (name, address & phone number)

\_\_\_\_\_

as Principal, and (name, address & phone number)

\_\_\_\_\_

as Surety, held and firmly bound unto the City of Dacula, Georgia, as OWNER in the penal sum of five (5%) percent of the total bid which equals \_\_\_\_\_ for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

The condition of the above obligation is such that whereas the Principal has submitted to the OWNER a certain Bid, attached hereto and hereby made a part hereof to enter into a contract in writing for the Lake Forest Drive/ Arnold Street Gravity Sewer Replacement, with the work described as follows:

PROJECT DESCRIPTION:

**The Project consists of, but is not limited to the following major elements:**

**Construction of approximately 240 linear feet of 6” diameter PVC gravity sewer and service lateral, two new sewer manholes, connection to existing Gwinnett County sewer manhole, connection to existing service laterals, decommissioning an existing septic system, and site restoration.**

NOW, THEREFORE,

- (a) If said Bid shall be rejected, or in the alternate,
- (b) If said Bid shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said Bid) and shall furnish a bond for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said Bid, then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the OWNER may accept such Bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and Surety have executed this Bond by causing their respective names to be hereunto subscribed and their seals to be hereunto affixed by their duly authorized officers, on this the \_\_\_\_\_ day of \_\_\_\_\_, 2022.

CONTRACTOR - PRINCIPAL:

\_\_\_\_\_

BY \_\_\_\_\_

Name \_\_\_\_\_  
(Please Type)

Title \_\_\_\_\_

ATTEST:

\_\_\_\_\_

Name \_\_\_\_\_  
(Please Type)

Title \_\_\_\_\_

(SEAL)

Note: Attest for a Corporation must be by the corporate secretary; for a partnership by another partner; for an individual by a Notary.

SURETY:

\_\_\_\_\_

BY \_\_\_\_\_

Name \_\_\_\_\_  
(Please Type)

Title \_\_\_\_\_

ATTEST:

\_\_\_\_\_

Name \_\_\_\_\_  
(Please Type)

Title \_\_\_\_\_

(SEAL)

Note: Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located.

END OF SECTION 00410

SECTION 00460

NON-COLLUSION AFFIDAVIT OF PRIME BIDDER

State of \_\_\_\_\_ }

County of \_\_\_\_\_ }

\_\_\_\_\_, being duly sworn, deposes and says that:

1. He is \_\_\_\_\_ (owner, partner, officer, representative, or agent) of \_\_\_\_\_ the Bidder that has submitted the attached Bid.
2. He is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid.
3. Such Bid is genuine and is not a collusive or sham Bid.
4. Neither the said Bidder, nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham Bid in connection with the Contract for which the attached Bid has been submitted or to refrain from bidding in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person, to fix the price or prices in the attached Bid or of any other Bidder, or to fix any overhead, profit or cost element of the Bid price or the Bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the OWNER (Local Public Agency) or any person interested in the proposed Contract.
5. The price or prices quoted in the attached Bid are fair and proper and not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

Signature \_\_\_\_\_

Title \_\_\_\_\_

Subscribed and Sworn to before me this \_\_\_\_ day of \_\_\_\_\_, 2022.

Notary Signature \_\_\_\_\_

(Seal)

My Commission Expires:

\_\_\_\_\_  
Date

END OF SECTION 00460



SECTION 00462

CONTRACTOR AFFIDAVIT UNDER O.C.G.A. §13-10-91(B)(1)

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. §13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services on behalf of City of Dacula, Georgia has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. §13-10-91. Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the contractor with the information required by O.C.G.A. §13-10-91(b). Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

\_\_\_\_\_  
Federal Work Authorization User Identification Number

\_\_\_\_\_  
Date of Authorization

\_\_\_\_\_  
Name of Contractor

Dacula City Hall Sewer Connection  
Name of Project

City of Dacula, Georgia  
Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on \_\_\_\_\_ day of \_\_\_\_\_, 2022.

\_\_\_\_\_  
Signature of Authorized Officer or Agent

\_\_\_\_\_  
Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE \_\_\_\_\_ DAY OF \_\_\_\_\_ 2022.

\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires:

END OF SECTION 00462

SECTION 00490

BYRD ANTI-LOBBYING AMENDMENT CERTIFICATION

(To be submitted with each bid or offer exceeding \$100,000)

The undersigned, \_\_\_\_\_ of \_\_\_\_\_ (the "Company") hereby certifies, to the best of his or her knowledge, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form - LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The Company certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. § 3801 et seq., apply to this certification and disclosure, if any.

\_\_\_\_\_  
Signature of Company Authorized Official

\_\_\_\_\_  
Name and Title of Company Authorized Official                      Date

### DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352  
(See Reverse for public burden disclosure.)

<b>1. Type of Federal Action:</b> <input type="checkbox"/> a. contract <input type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	<b>2. Status of Federal Action:</b> <input type="checkbox"/> a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	<b>3. Report Type:</b> <input type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change <b>For Material Change Only:</b> year _____ quarter _____ date of last report _____
<b>4. Name and Address of Reporting Entity:</b> <input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, if known:  Congressional District, if known:	<b>5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime:</b>   Congressional District, if known:	
<b>6. Federal Department/Agency:</b>	<b>7. Federal Program Name/Description:</b>  CFDA Number, if applicable:	
<b>8. Federal Action Number, if known:</b>	<b>9. Award Amount, if known:</b>  \$	
<b>10. a. Name and Address of Lobbying Registrant</b> (If individual, last name, first name, MI):	<b>b. Individuals Performing Services</b> (Including address if different from No. 10a) (last name, first name, MI):	
<b>11.</b> Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less that \$10,000 and not more than \$100,000 for each such failure.	Signature: _____ Print Name: _____ Title: _____ Telephone No.: _____ Date: _____	
<b>Federal Use Only:</b>		Authorized for Local Reproduction Standard Form LLL (Rev. 7-97)

Submitted:

Name:

Conf Nbr:

## INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred, Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, State and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be a prime or subaward receipt. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, State and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (Item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in Item 1 (e.g., Request for Proposal (RFP) number; Invitation for bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g. "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in Item 4 or 5.
10. (a) Enter the full name, address, city, State and zip code of the lobbying registrant under the Lobbying Disclosure Act of 1995 engaged by the reporting entity identified in Item 4 to influence the covered Federal action.  
  
(b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name and Middle Initial (MI).
11. Certifying official shall sign and date the form, print his/her name, title and telephone number.

*According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB Control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, DC 20503.*

Submitted:

Name:

Conf Nbr:

SECTION 00500  
NOTICE OF AWARD

TO: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Project Description

The site of the proposed work is in the City of Dacula, Georgia. **The Project consists of, but is not limited to the following major elements:**

**Construction of approximately 240 linear feet of 6” diameter PVC gravity sewer and service lateral, two new sewer manholes, connection to existing Gwinnett County sewer manhole, connection to existing service laterals, decommissioning an existing septic system, and site restoration.**

CONTRACTOR agrees to commence work on or before a date to be specified in a written "Notice to Proceed" of the OWNER for the project. CONTRACTOR shall fully complete all work associated with this project within ninety (90) consecutive calendar days from the date of a written "Notice to Proceed".

The OWNER has considered the Bid submitted by you for the above described WORK in response to its Advertisement for Bids and has decided to award you the Contract.

You are hereby notified that your Bid has been accepted for the Contract Price of \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (\$ \_\_\_\_\_), which is based on the unit prices shown on the Bid Form for both the base bid (Section 00300).

You are required by the Information for Bidders to execute the Agreement and furnish the required CONTRACTOR's Performance and Payment Bonds and Certificates of Insurance within ten (10) calendar days from the date of this Notice.

If you fail to execute said Agreement and to furnish said Bonds within ten (10) calendar days from the date of this Notice, said OWNER will be entitled to consider all your rights arising out of the OWNER's acceptance of your Bid as abandoned and as a forfeiture as may be granted by law.

You are required to return an acknowledged copy of this Notice of Award to the OWNER.

Dated this \_\_\_\_ day of \_\_\_\_\_, 2022.

\_\_\_\_\_  
Trey King, Mayor  
City of Dacula, Georgia

ACKNOWLEDGEMENT OF NOTICE

\_\_\_\_\_  
CONTRACTOR

DATE: \_\_\_\_\_

END OF SECTION 00500

## SECTION 00510

### AGREEMENT

**THIS AGREEMENT** is dated as of the \_\_\_\_\_ day of \_\_\_\_\_, 2022 by and between the City of Dacula, Georgia (hereinafter called OWNER), and \_\_\_\_\_ (hereinafter called CONTRACTOR). OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

**The Project consists of, but is not limited to the following major elements:**

**Construction of approximately 240 linear feet of 6" diameter PVC gravity sewer and service lateral, two new sewer manholes, connection to existing Gwinnett County sewer manhole, connection to existing service laterals, decommissioning an existing septic system, and site restoration.**

#### **ARTICLE 1 - WORK**

CONTRACTOR shall complete all WORK as specified or indicated in the CONTRACT DOCUMENTS. The WORK described previously includes all material, labor, tools, equipment, and any other miscellaneous items necessary to complete the work as described in the Technical Specifications and Construction Drawings.

#### **ARTICLE 2 - ENGINEER**

The Project has been designed by Precision Planning, Inc., 400 Pike Boulevard, Lawrenceville, Georgia 30046, who is hereafter referred to as ENGINEER, and who will assume all duties and responsibilities and will have the rights and authority assigned to ENGINEER in the CONTRACT DOCUMENTS in connection with completion of the WORK in accordance with the CONTRACT DOCUMENTS.

#### **ARTICLE 3 - CONTRACT TIME**

- 3.1 CONTRACTOR agrees to commence WORK within ten (10) days of a date to be specified in a written "Notice to Proceed" from the OWNER and to fully complete the contract in a total construction time of ninety (90) consecutive calendar days from the date of the "Notice to Proceed".
- 3.2 Time for Completion: OWNER and CONTRACTOR recognize that time is the essence of this Agreement and that OWNER will suffer financial loss if the WORK is not substantially complete within the time specified in Paragraph 3.1 above, plus any extension thereof allowed in the General Conditions. They also recognize the delays, expense and difficulties involved in proving in a legal or arbitration preceding the actual loss suffered by OWNER if the WORK is not substantially complete on time. Accordingly, OWNER and CONTRACTOR understand and recognize that it is impossible to conclusively assess damages to the OWNER for the failure of the CONTRACTOR to substantially complete the project in a timely manner. Therefore, the OWNER and CONTRACTOR have agreed that a reasonable amount of damages for each day that the project remains incomplete after the contract time (as stated in paragraph 3.1) has expired would be the amount of \$500.

#### **ARTICLE 4 - CONTRACT PRICE**

OWNER shall pay CONTRACTOR for performance of the WORK in accordance with the CONTRACT DOCUMENTS in current funds of \_\_\_\_\_ (\$ \_\_\_\_\_).

#### **ARTICLE 5 - PAYMENT PROCEDURES**

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

5.1 Progress Payments: CONTRACTOR shall furnish to OWNER, on forms furnished by OWNER, no later than the 25th day of each month, a progress payment request for the amount of work accomplished, products furnished, and products stored at the site during the previous month. The progress payment request shall be signed by the CONTRACTOR and be supported by such data as OWNER may reasonably require. ENGINEER shall review, and within ten (10) days after receipt of each progress payment request, indicate in writing approval of the payment request to the OWNER or return the progress payment request to the CONTRACTOR indicating in writing his reasons for refusing to approve it. The OWNER will, within thirty (30) days after receipt of progress payment request, pay CONTRACTOR based on the approved progress payment request, less the retainage and other deductions pursuant to the terms of these CONTRACT DOCUMENTS. (Ref. Section 00800, Paragraph 3.18).

5.1.1 Prior to Substantial Completion progress payments will be made in an amount equal to:

95% of the WORK completed

100% of materials and equipment not incorporated in the WORK but delivered and suitably stored, less in each case the aggregate of payments previously made.

5.1.2 At substantial completion of the work and as the owner's authorized contract representative determines the work to be reasonably satisfactory, the owner shall pay the retainage to the contractor. If at that time there are any remaining incomplete items, an amount equal to 200 percent of the value of each item as determined by the owner's authorized contract representative shall be withheld until such item or items are completed. (Reference O.C.G.A., Article 2, Section 13-10-02)

5.2 Final Payment: Upon acceptance of WORK in accordance with the General Conditions, OWNER shall pay balance due of Contract Price less payments previously made. Pay requests will be submitted in accordance with Section 00800, Paragraph 3.18; Supplementary General Provisions.

## **ARTICLE 6 - INDEMNIFICATION**

The CONTRACTOR shall indemnify and hold harmless the OWNER and Consulting ENGINEER (also known as Precision Planning, Inc.) and their agents and employees from and against all claims, damages, losses and expenses, including but not limited to attorney's fees, arising out of or resulting from the performance of the WORK, provided that any such claim, damage, loss, expense or attorney's fees is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property including the loss of use resulting therefrom, and is caused in whole or in part by any negligent act or omission of the CONTRACTOR, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not the negligent act is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this Clause. In any and all claims against the OWNER or the Consulting ENGINEER (Precision Planning, Inc.) or any of their agents or employees, by any employee of the CONTRACTOR, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation set forth in this paragraph shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the CONTRACTOR or any Subcontractor under workers' or workmens' compensation acts, disability benefit acts or other employee benefit acts.

## **ARTICLE 7 - CONTRACTOR'S REPRESENTATIONS**

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

- 7.1 CONTRACTOR has familiarized himself with the nature and extent of the CONTRACT DOCUMENTS, WORK, locality, and with all local conditions and federal, state and local laws, ordinances, rules and regulations that in any manner may affect cost, progress or performance of the WORK. CONTRACTOR is aware that he must be licensed to do business in the State of Georgia, as well as in Elbert, County, Georgia.
- 7.2 CONTRACTOR has studied carefully all reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the WORK which were relied upon by design ENGINEER in preparation of the Drawings and Specifications and which have been identified in the Supplemental General Provisions.
- 7.3 CONTRACTOR has made or caused to be made examinations, investigations and tests, and studies of such reports and related data, in addition to those referred to in Paragraph 7.2, as he deems necessary for the performance of the WORK at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the CONTRACT DOCUMENTS; and no additional examinations, investigations, tests, reports or similar data are or will be required by CONTRACTOR for such purposes.
- 7.4 CONTRACTOR has correlated the results of all such observations, examinations, investigations, tests, reports, and data with the terms and conditions of the CONTRACT DOCUMENTS.
- 7.5 CONTRACTOR has given OWNER written notice of all conflicts, errors, or discrepancies that he has discovered in the CONTRACT DOCUMENTS and the written resolution thereof by OWNER is acceptable to CONTRACTOR.



## **ARTICLE 8 - CONTRACT DOCUMENTS**

The CONTRACT DOCUMENTS which comprise the entire agreement between OWNER and CONTRACTOR are attached to this Agreement, made a part hereof and consist of the following:

- 8.1 This Agreement
- 8.2 Exhibits to this Agreement include the following:  
Advertisement for Bidders, Instructions to Bidders, Bid Form and associated documents
- 8.3 Performance and Labor and Material Payment Bonds
- 8.4 Notice of Award
- 8.5 Notice to Proceed
- 8.6 General Conditions
- 8.7 Supplementary General Provisions
- 8.8 Specification bearing the title **“DACULA CITY HALL SEWER CONNECTION”**.
- 8.9 Construction Drawings
- 8.10 Addendum (s) dated \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.
- 8.11 CONTRACTOR'S Bid
- 8.12 Documentation submitted by CONTRACTOR prior to Notice of Award
- 8.13 Any modifications, including Change Orders, duly delivered after execution of Agreement.

There are no CONTRACT DOCUMENTS other than those listed above in this Article 8. The CONTRACT DOCUMENTS may only be altered, amended or repealed by expressed written consent of OWNER.

## **ARTICLE 9 - MISCELLANEOUS**

- 9.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions, shall have the meanings indicated in the General Conditions.
- 9.2 No assignment by a party hereto of any rights under or interests in the CONTRACT DOCUMENTS will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, moneys that may become due and moneys that are due, may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the CONTRACT DOCUMENTS.
- 9.3 OWNER and CONTRACTOR each binds himself, his partners, successors, assigns and legal representatives to the other party hereto, his partners, successors, assigns and legal representatives in respect to all covenants, agreements, and obligations contained in the CONTRACT DOCUMENTS.
- 9.4 The term Special Conditions as used in the General Conditions or elsewhere in the CONTRACT DOCUMENTS, refers to the "Supplementary General Provisions".
- 9.5 The Supplementary General Provisions are intended to supplement, rather than replace, the General Conditions, except where the Supplementary General Provisions are in direct conflict with the General Conditions, the Supplementary General Provisions shall control.

## **ARTICLE 10 - PROVISIONS FOR TERMINATION OF CONTRACT**

- 10.1 If through any cause, other than an "Excusable Delay", CONTRACTOR shall fail to fulfill its obligations under this Contract in a timely and proper manner, or if CONTRACTOR shall violate any of the covenants, agreements, conditions or obligations of the CONTRACT DOCUMENTS; OWNER may terminate this Contract as defined in the General Conditions. In such event, OWNER may take over the WORK and prosecute the same to completion, by Contract or otherwise, and CONTRACTOR and his sureties shall be liable to OWNER for any additional cost incurred by OWNER in its completion of the WORK and they shall also be liable to OWNER for liquidated damages for any delay in the completion of the WORK as provided below.
- 10.2 Liquidated Damages for Delay: If the work is not completed within the time stipulated, therefore, including any extensions of time for excusable delays as herein provided, CONTRACTOR shall pay to OWNER as fixed and agreed, liquidated damages (as stated in Article 3 Paragraph 3.2) for each working day of delay, until the work is completed, and CONTRACTOR and his sureties shall be liable to OWNER for this amount.
- 10.3 Excusable Delays: The right of CONTRACTOR to proceed shall not be terminated nor shall CONTRACTOR be charged with liquidated damages for any delays in the completion of the work due:
- 10.3.1 To any acts of the Government, including controls or restrictions upon or requisitioning of materials, equipment, tools, or labor by reason of war, National Defense, or any other national emergency;
- 10.3.2 To causes not reasonably foreseeable by the parties to this Contract at the time of the execution of the Contract which are beyond the control and without the fault or negligence of CONTRACTOR, including, but not restricted to, acts of a public enemy, acts of another CONTRACTOR in the performance of some other contract with OWNER, fires, floods, epidemics, quarantine, freight embargoes, and weather of unusual severity such as hurricanes, tornados, and cyclones;
- 10.3.3 To acts of OWNER which cause delays, and;

Provided, however, that CONTRACTOR promptly notified OWNER within ten (10) days in writing of the cause of the delay. Upon receipt of such notification, OWNER shall ascertain the facts and the cause and extent of delay. If upon the basis of the terms of this Contract, the delay is properly excusable, OWNER shall extend the time for completing the WORK for a period of time commensurate with the period of excusable delay.

IN WITNESS WHEREOF, the parties hereto have signed this Agreement in six (6) parts. All portions of the CONTRACT DOCUMENTS have been signed or identified by OWNER, OWNER's Attorney, CONTRACTOR, or by ENGINEER on OWNER's behalf.

This Agreement will be effective on the date of the Agreement as shown on page 00510-1.

\_\_\_\_\_  
Trey King, Mayor  
City of Dacula, Georgia

ATTEST: \_\_\_\_\_  
City of Dacula, Georgia

(Seal)

\_\_\_\_\_  
Contractor

ATTEST: \_\_\_\_\_  
Corporate  
Secretary/Partner/Notary

(Seal)

**NOTE: Attest for a corporation must be by the corporate secretary; for a partnership by another partner; for an individual by a Notary.**

\_\_\_\_\_  
\_\_\_\_\_  
**ADDRESSES FOR GIVING NOTICE**

**OWNER:**  
City of Dacula \_\_\_\_\_  
442 Harbins Road \_\_\_\_\_  
Dacula, Georgia 30019 \_\_\_\_\_  
Phone (770) 963-7451 \_\_\_\_\_

**CONTRACTOR:**  
\_\_\_\_\_ . \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Phone: \_\_\_\_\_

END OF SECTION 00510

SECTION 00540

CERTIFICATE OF OWNER'S ATTORNEY

I, the undersigned, \_\_\_\_\_, the duly authorized and acting legal representative of the City of Dacula, Georgia, do hereby certify as follows:

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

OWNER'S ATTORNEY

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name

DATE: \_\_\_\_\_

END OF SECTION 00540

SECTION 00560

NOTICE TO PROCEED

TO: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Phone: \_\_\_\_\_

Project Description

The site of the proposed WORK is in the City of Dacula, Georgia.

**The Project consists of, but is not limited to the following major elements:**

**Construction of approximately 240 linear feet of 6” diameter PVC gravity sewer and service lateral, two new sewer manholes, connection to existing Gwinnett County sewer manhole, connection to existing service laterals, decommissioning an existing septic system, and site restoration.**

You are hereby notified to commence WORK in accordance with the Agreement dated \_\_\_\_\_, 2022 on or before \_\_\_\_\_, 2022, and you are to complete the WORK on or before \_\_\_\_\_, 2022.

Dated this \_\_\_\_ day of \_\_\_\_\_, 2022.

\_\_\_\_\_  
Trey King, Mayor  
City of Dacula, Georgia

\_\_\_\_\_  
\_\_\_\_\_  
Receipt of the above "Notice to Proceed" is hereby acknowledged this the \_\_\_\_ day of \_\_\_\_\_, 2022.

\_\_\_\_\_  
CONTRACTOR

END OF SECTION 00560

# PERFORMANCE BOND

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

**CONTRACTOR**

**SURETY (Name and Address of Principal Place of Business):**

**OWNER (Name and Address):**

Trey King, Mayor  
City of Dacula  
442 Harbins Road  
Dacula, Georgia 30019  
Phone: (770) 963-7451

**CONTRACT**

**Date:**

**Amount:**

**Description:** The site of the proposed work is in the City of Dacula, Georgia.

**The Project consists of, but is not limited to the following major elements: Construction of approximately 240 linear feet of 6” diameter PVC gravity sewer and service lateral, two new sewer manholes, connection to existing Gwinnett County sewer manhole, connection to existing service laterals, decommissioning an existing septic system, and site restoration.**

**BOND**

Bond Number:

Date (Not earlier than Contract Date):

Amount:

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

**CONTRACTOR AS PRINCIPAL**

Company:

Signature: \_\_\_\_\_ (Seal)

Name and Title:

**SURETY**

\_\_\_\_\_  
(Seal)

Surety’s Name and Corporate Seal

By:

\_\_\_\_\_  
Signature and Title

(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

Attest:

\_\_\_\_\_  
Signature and Title

**CONTRACTOR AS PRINCIPAL**

Company:

Signature: \_\_\_\_\_ (Seal)

Name and Title:

**SURETY**

\_\_\_\_\_  
(Seal)

Surety’s Name and Corporate Seal

By:

\_\_\_\_\_  
Signature and Title

(Attach Power of Attorney)

Attest:

\_\_\_\_\_  
Signature and Title:

EJCDC No. C-610 (2002 Edition)

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

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

2. If Contractor performs the Contract, Surety and Contractor have no obligation under this Bond, except to participate in conferences as provided in Paragraph 3.1.

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

3.1. Owner has notified Contractor and Surety, at the addresses described in Paragraph 10 below, that Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with Contractor and Surety to be held not later than 15 days after receipt of such notice to discuss methods of performing the Contract. If Owner, Contractor and Surety agree, Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive Owner's right, if any, subsequently to declare a Contractor Default; and

3.2. Owner has declared a Contractor Default and formally terminated Contractor's right to complete the Contract. Such Contractor Default shall not be declared earlier than 20 days after Contractor and Surety have received notice as provided in Paragraph 3.1; and

3.3. Owner has agreed to pay the Balance of the Contract Price to:

1. Surety in accordance with the terms of the Contract;
2. Another contractor selected pursuant to Paragraph 4.3 to perform the Contract.

4. When Owner has satisfied the conditions of Paragraph 3, Surety shall promptly and at Surety's expense take one of the following actions:

4.1. Arrange for Contractor, with consent of Owner, to perform and complete the Contract; or

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

4.3. Obtain bids or negotiated proposals from qualified contractors acceptable to Owner for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by Owner and Contractor selected with Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Contract, and pay to Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by Owner resulting from Contractor Default; or

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

1. After investigation, determine the amount for which it may be liable to Owner and, as soon as practicable after the amount is determined, tender payment therefor to Owner; or
2. Deny liability in whole or in part and notify Owner citing reasons therefor.

5. If Surety does not proceed as provided in Paragraph 4 with reasonable promptness, Surety shall be deemed to be in default on this Bond 15 days after receipt of an additional written notice from Owner to Surety demanding that Surety perform its obligations under this Bond, and Owner shall be entitled to enforce any remedy available to Owner. If Surety proceeds as provided in Paragraph 4.4, and Owner refuses the payment tendered or Surety has denied liability, in whole or in part, without further notice Owner shall be entitled to enforce any remedy available to Owner.

6. After Owner has terminated Contractor's right to complete the Contract, and if Surety elects to act under Paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of Surety to Owner shall not be greater than those of Contractor under the Contract, and the responsibilities of Owner to Surety shall not be greater than those of Owner under the Contract. To a limit of the amount of this Bond, but subject to commitment by Owner of the Balance of the Contract Price to mitigation of costs and damages on the Contract, Surety is obligated without duplication for:

6.1. The responsibilities of Contractor for correction of defective Work and completion of the Contract;

6.2. Additional legal, design professional, and delay costs resulting from Contractor's Default, and resulting from the actions or failure to act of Surety under Paragraph 4; and

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

7. Surety shall not be liable to Owner or others for obligations of Contractor that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than Owner or its heirs, executors, administrators, or successors.

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

9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and shall be instituted within two years after Contractor Default or within two years after Contractor ceased working or within two years after Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

10. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the address shown on the signature page.

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

12. Definitions.

12.1. Balance of the Contract Price: The total amount payable by Owner to Contractor under the Contract after all proper adjustments have been made, including allowance to Contractor of any amounts received or to be received by Owner in settlement of insurance or other Claims for damages to which Contractor is entitled, reduced by all valid and proper payments made to or on behalf of Contractor under the Contract.

12.2. Contract: The agreement between Owner and Contractor identified on the signature page, including all Contract Documents and changes thereto.

12.3. Contractor Default: Failure of Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.

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

FOR INFORMATION ONLY – Name, Address and Telephone  
Surety Agency or Broker  
Owner's Representative (**engineer** or other party)

# PAYMENT BOND

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

**CONTRACTOR**

**SURETY (Name and Address of Principal Place of Business):**

**OWNER (Name and Address):**

Trey King, Mayor  
City of Dacula  
442 Harbins Road  
Dacula, Georgia 30019  
Phone: (770) 963-7451

**CONTRACT**

**Date:**

**Amount:**

**Description:** The site of the proposed work is in the City of Dacula, Georgia.

**The Project consists of, but is not limited to the following major elements: Construction of approximately 240 linear feet of 6” diameter PVC gravity sewer and service lateral, two new sewer manholes, connection to existing Gwinnett County sewer manhole, connection to existing service laterals, decommissioning an existing septic system, and site restoration.**

**BOND**

Bond Number:

Date (Not earlier than Contract Date):

Amount:

Modifications to this Bond Form:

Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Payment Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Company:

Signature: \_\_\_\_\_ (Seal)  
Name and Title:

\_\_\_\_\_  
Surety’s Name and Corporate Seal

By: \_\_\_\_\_  
Signature and Title  
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

Attest: \_\_\_\_\_  
Signature and Title

CONTRACTOR AS PRINCIPAL

SURETY

Company:

Signature: \_\_\_\_\_ (Seal)  
Name and Title:

\_\_\_\_\_  
Surety’s Name and Corporate Seal

By: \_\_\_\_\_  
Signature and Title  
(Attach Power of Attorney)

Attest: \_\_\_\_\_  
Signature and Title:

EJCDC No. C-615 (2002 Edition)

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



1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to Owner to pay for labor, materials, and equipment furnished by Claimants for use in the performance of the Contract, which is incorporated herein by reference.

2. With respect to Owner, this obligation shall be null and void if Contractor:

2.1. Promptly makes payment, directly or indirectly, for all sums due Claimants, and

2.2. Defends, indemnifies, and holds harmless Owner from all claims, demands, liens, or suits alleging non-payment by Contractor by any person or entity who furnished labor, materials, or equipment for use in the performance of the Contract, provided Owner has promptly notified Contractor and Surety (at the addresses described in Paragraph 12) of any claims, demands, liens, or suits and tendered defense of such claims, demands, liens, or suits to Contractor and Surety, and provided there is no Owner Default.

3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly, for all sums due.

4. Surety shall have no obligation to Claimants under this Bond until:

4.1. Claimants who are employed by or have a direct contract with Contractor have given notice to Surety (at the addresses described in Paragraph 12) and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.

4.2. Claimants who do not have a direct contract with Contractor:

1. Have furnished written notice to Contractor and sent a copy, or notice thereof, to Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials or equipment were furnished or supplied, or for whom the labor was done or performed; and

2. Have either received a rejection in whole or in part from Contractor, or not received within 30 days of furnishing the above notice any communication from Contractor by which Contractor had indicated the claim will be paid directly or indirectly; and

3. Not having been paid within the above 30 days, have sent a written notice to Surety and sent a copy, or notice thereof, to Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to Contractor.

5. If a notice by a Claimant required by Paragraph 4 is provided by Owner to Contractor or to Surety, that is sufficient compliance.

6. When a Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at Surety's expense take the following actions:

6.1. Send an answer to that Claimant, with a copy to Owner, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.

6.2. Pay or arrange for payment of any undisputed amounts.

7. Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by Surety.

8. Amounts owed by Owner to Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any performance bond. By Contractor furnishing and Owner accepting this Bond, they agree that all funds earned by Contractor in the performance of the Contract are dedicated to satisfy obligations of Contractor and Surety under this Bond, subject to Owner's priority to use the funds for the completion of the Work.

9. Surety shall not be liable to Owner, Claimants, or others for obligations of Contractor that are unrelated to the Contract. Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

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

11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Paragraph 4.1 or Paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to Surety, Owner, or Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by Surety, Owner, or Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

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

14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

#### 15. DEFINITIONS

15.1. Claimant: An individual or entity having a direct contract with Contractor, or with a first-tier subcontractor of Contractor, to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Contract, architectural and engineering services required for performance of the Work of Contractor and Contractor's Subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

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

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

#### **FOR INFORMATION ONLY – Name, Address and Telephone**

**Surety Agency or Broker:**

**Owner's Representative (engineer or other party):**

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

## STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by



Issued and Published Jointly by



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

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

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# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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## ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

### 1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
  2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
  3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
  4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
  5. *Bidder*—An individual or entity that submits a Bid to Owner.
  6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
  7. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
  8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
  9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
  10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision

regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer has declined to address. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. (“CERCLA”); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5101 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.I 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 for whom the Owner is responsible 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 11.04.C.2.a and

11.04.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 additional inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.
- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.

1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

#### 14.06 *Owner May Stop the Work*

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

#### 14.07 *Owner May Correct Defective Work*

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

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

### 15.01 *Progress Payments*

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

Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and

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

D. *Payment Becomes Due:*

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

E. *Reductions in Payment by Owner:*

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



imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement.

#### 15.02 *Contractor's Warranty of Title*

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

#### 15.03 *Substantial Completion*

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

may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.

- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

#### 15.04 *Partial Use or Occupancy*

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

#### 15.05 *Final Inspection*

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

#### 15.06 *Final Payment*

- A. *Application for Payment:*
  1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of

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

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

**B. *Engineer's Review of Application and Acceptance:***

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

**C. *Completion of Work:*** The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.

**D. *Payment Becomes Due:*** Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer

(less any further sum Owner is entitled to set off against Engineer's recommendation, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

#### 15.07 *Waiver of Claims*

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

#### 15.08 *Correction Period*

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

respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

- E. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

## **ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION**

### **16.01 *Owner May Suspend Work***

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

### **16.02 *Owner May Terminate for Cause***

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
  - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);
  - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
  - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
  - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:
  - 1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and
  - 2. enforce the rights available to Owner under any applicable performance bond.
- C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs,

losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

#### 16.03 *Owner May Terminate For Convenience*

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

#### 16.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the

Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

## **ARTICLE 17 – FINAL RESOLUTION OF DISPUTES**

### **17.01 *Methods and Procedures***

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

## **ARTICLE 18 – MISCELLANEOUS**

### **18.01 *Giving Notice***

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

### **18.02 *Computation of Times***

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

### **18.03 *Cumulative Remedies***

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of

them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

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

18.05 *No Waiver*

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

18.06 *Survival of Obligations*

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

18.07 *Controlling Law*

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

18.08 *Headings*

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



## SECTION 00800

### SUPPLEMENTARY GENERAL PROVISIONS

#### SECTION 1 - GENERAL

##### 1.01 SUPPLEMENTS

The supplements contained in these Supplementary General Provisions modify, change, delete from, or add to the General Conditions of these CONTRACT DOCUMENTS. Where any article, paragraph, subparagraph, or clause is modified by these supplements, the unaltered provisions of that article, paragraph, subparagraph, or clause shall remain in effect. Reference made in the General Conditions to Supplemental General Conditions or Special Conditions refer to these Supplementary General Provisions.

##### 1.02 GENERAL CONDITIONS

The General Conditions are general in scope and may refer to conditions not encountered on the work covered by these CONTRACT DOCUMENTS. Any provision of the General Conditions which pertains to a nonexistent condition and is not applicable to the work to be performed hereunder, or which conflicts with any provision of the Supplementary General Provisions or Specifications, shall have no meaning in these CONTRACT DOCUMENTS and shall be disregarded.

##### 1.03 CONTRACT DOCUMENTS

The CONTRACT DOCUMENTS cover all matters relating to the work the Contractor is obligated to perform. The CONTRACT DOCUMENTS are organized into various parts and sections for convenience. All parts and sections of the CONTRACT DOCUMENTS are complementary, and what is called for by any shall be as binding as if called for by all.

The CONTRACT DOCUMENTS, as defined herein, form the Contract between OWNER and the CONTRACTOR for the performance of the work covered by these CONTRACT DOCUMENTS. It is agreed by the OWNER and the CONTRACTOR, as evidenced by and through execution of the Contract, that all terms of the CONTRACT DOCUMENTS shall be binding on both parties to the Contract and shall be a part of the Contract, the same as if the CONTRACT DOCUMENTS are repeated therein.

##### 1.04 SPECIFICATIONS

No attempt has been made in the Specifications to segregate work to be performed by any trade or subcontract. Any segregation between the trades or crafts will be solely a matter for agreement between the CONTRACTOR and his employees and his SUBCONTRACTORS.

The Specifications as a whole will govern the construction of the entire work. The applicable provisions thereof will govern work to be performed under each section.

##### 1.05 GOVERNING STANDARD SPECIFICATIONS

Standard specifications or other specifications of organizations, societies, governmental agencies, or bodies, referred to in these CONTRACT DOCUMENTS, are made a part of these CONTRACT

DOCUMENTS the same as if repeated herein. Unless specifically stated otherwise, the standard shall be that adopted and published at the date of the Advertisement.

#### 1.06 EXECUTION OF CONTRACT

The CONTRACTOR and the OWNER shall execute the prescribed Contract in six (6) counterparts, each of which shall be deemed an original document.

#### 1.07 DIMENSIONS AND ELEVATIONS

Figured dimensions on drawings shall take precedence over measurement by scale, and detailed working drawings are to take precedence over general drawings and shall be considered as explanatory of them and not as indicating extra work.

#### 1.08 ASSIGNMENTS

The CONTRACTOR shall not assign, in whole or part, this contract or any moneys due or to become due thereunder without the written consent of the OWNER.

### SECTION 2 - DEFINITIONS (Ref. Article 1)

#### 2.01 AGREEMENT OR CONTRACT

The written agreement between the OWNER and the CONTRACTOR for the performance of the WORK in accordance with the requirements of the CONTRACT DOCUMENTS and for the payment of the agreed consideration therefore. Whenever, in any portion of the CONTRACT DOCUMENTS, a requirement of the Contract is stated, it shall be interpreted to mean a requirement of the CONTRACT DOCUMENTS as defined herein.

#### 2.02 CONTRACT DOCUMENTS

The Advertisement for Bids, Instructions to Bidders, Bid Form and associated documents, Bid Bond, Notice of Award, Performance Bond, Payment Bond, Agreement, General Conditions, Supplemental General Conditions, Supplementary General Provisions, Technical Specifications, Drawings, Addenda, Change Orders and Notice to Proceed shall constitute the CONTRACT DOCUMENTS. Whenever, in any portion of the CONTRACT DOCUMENTS, the terms "Plans and Specifications" or "Specifications" or "Contract" or words of like import appear, they shall be interpreted to mean CONTRACT DOCUMENTS as defined herein.

#### 2.03 DRAWINGS

Drawings, which are sometimes referred to herein as "plans" are defined as all (a) drawings furnished by OWNER as a basis for bids; (b) standard details by the Gwinnett County Department of Water Resources as applicable; (c) supplementary drawings furnished by OWNER to clarify and to define in greater detail the intent of the Contract Drawings and Specifications; (d) drawings submitted by the successful bidder with his bid, provided such drawings are acceptable to OWNER; (e) drawings furnished by OWNER to CONTRACTOR during the progress of the WORK; and (f) engineering data and drawings submitted by the CONTRACTOR during the progress of the WORK, provided such drawings are acceptable to OWNER.

2.04 ENGINEER

Person duly authorized to act as a representative of the OWNER to observe the construction of the WORK contemplated herein.

2.05 INFORMALITY

Any deviation in the bid proposal that does not alter the bid schedule format or place any conditions or qualifications on the bid.

2.06 OWNER: The City of Dacula, Georgia.

2.07 OWNER'S ATTORNEY

Person duly authorized by OWNER to act in the capacity of OWNER.

2.08 AS ORDERED, AS DIRECTED, AS REQUIRED, AS PERMITTED, AS ALLOWED

Whenever in these CONTRACT DOCUMENTS the words "as ordered", "as directed", "as required", "as permitted", "as allowed", or words or phrases of like import are used, it shall be understood and agreed that the order, direction, requirement, permission, or allowance of OWNER is intended only to the extent of judging compliance with the terms of these CONTRACT DOCUMENTS. None of these terms shall imply that OWNER has any authority or responsibility for supervision of CONTRACTOR's forces or construction operations, such supervision is the sole responsibility of the CONTRACTOR.

2.09 PROJECT OBSERVER

An authorized representative of OWNER assigned to make periodic observations of the WORK performed by CONTRACTOR.

2.10 PERSON

The word "person" shall mean and include any individual, combination of individuals, partnership, society, association, joint stock company, corporation, firm, estate, receiver, trustee, assignee, referee, or any other person acting in a fiduciary or representative capacity, whether appointed by a court or otherwise.

2.11 PROVIDED

Whenever the term "provided" or "provide" is used in the Drawings or CONTRACT DOCUMENTS, it shall mean "provided complete in place", that is, "furnished and installed". Where "as shown", "as indicated", "as detailed", or other words of similar import are used, it is understood and agreed that references to the Drawings are intended unless otherwise expressly stated.

2.12 WRITTEN NOTICE

Any notice to the CONTRACTOR or OWNER by the other relative to any part of these CONTRACT DOCUMENTS in writing and considered delivered and the service thereof completed, when posted by United States Postal Service for transmission to the CONTRACTOR or OWNER at the address set

forth in these CONTRACT DOCUMENTS, or delivered in person to the CONTRACTOR or OWNER or his authorized representative on the Project. Any such notice shall be deemed to have been given or made as of the time of actual delivery, or in the case of mailing, when the notice should have been received in due course of posts.

## SECTION 3 - SUPPLEMENTARY CONDITIONS

### 3.01 COPIES OF CONTRACT DOCUMENTS

Upon execution of the Agreement, the OWNER will furnish the CONTRACTOR with two (2) copies of CONTRACT DOCUMENTS including two (2) sets of full-size Construction Drawings. Additional copies will be furnished at normal cost of reproduction.

### 3.02 NOTICE TO PROCEED

CONTRACTOR will be issued a written "Notice to Proceed" by OWNER upon compliance by CONTRACTOR with award procedures. The date of issuance of the "Notice to Proceed" shall be date of beginning of the Contract time.

### 3.03 STARTING THE PROJECT

The CONTRACTOR shall begin WORK within ten (10) days after issuance of "Notice to Proceed" and shall diligently prosecute the WORK to completion within the Contract Time. The CONTRACTOR shall notify the OWNER and ENGINEER two (2) days in advance of the date he will begin operation.

### 3.04 EXAMINATION OF CONTRACT DOCUMENTS AND SITE OF WORK

The contractor shall thoroughly and carefully examine and be familiar with these CONTRACT DOCUMENTS and site of work. The failure of the CONTRACTOR to examine the CONTRACT DOCUMENTS or the site and to acquaint himself with conditions relating to the WORK shall not relieve him from any obligation of the CONTRACT DOCUMENTS.

### 3.05 PERFORMANCE AND PAYMENT BONDS

Simultaneously with the execution and delivery of the Contract, the CONTRACTOR shall furnish and file with the OWNER a properly executed Performance Bond on the prescribed form in an amount equal to one hundred percent (100%) of the total Contract Price as security for the faithful performance by the CONTRACTOR of all undertakings, covenants, terms, conditions, and agreements of the CONTRACT DOCUMENTS, including compliance with performance guarantees and for the repairs and/or replacement of defective or deficient work provided under the CONTRACT DOCUMENTS for a period one (1) year after the date of final acceptance by the OWNER.

The CONTRACTOR shall also furnish and file with the OWNER, at the same time the Performance Bond is furnished, a Payment Bond on the prescribed form in an amount equal to one hundred percent (100%) of the total Contract Price as security for the prompt payment by the CONTRACTOR to all persons supplying labor and materials in the prosecution of WORK provided by the CONTRACT DOCUMENTS.

The Contract shall not be in force or binding on the OWNER until the Performance Bond and Payment Bond have been provided.

### 3.06 INTENT OF CONTRACT DOCUMENTS

It is the intent of these CONTRACT DOCUMENTS to prescribe a complete work and that the CONTRACTOR shall (a) furnish all labor, materials, products, supplies, tools, equipment, required to successfully execute and complete the WORK in accordance with these CONTRACT DOCUMENTS and to complete the WORK in an acceptable manner, ready for use, occupancy, or operation by OWNER within the time specified herein; and (b) carry out all duties and obligations imposed by these CONTRACT DOCUMENTS. The CONTRACT DOCUMENTS cover all matters relating to WORK which the CONTRACTOR undertakes to construct or perform. The CONTRACT DOCUMENTS are complementary, and what is called for by any part shall be as binding as if called for by all. Any reference to one part of these CONTRACT DOCUMENTS shall be construed as a reference to all parts.

### 3.07 ADDITIONAL WORK OR CHANGES

The OWNER may, at any time, without invalidating the Contract or any of the terms or conditions of the CONTRACT DOCUMENTS and without notice to the Sureties, make alterations, deviations, additions to, or omissions from the Drawings and other CONTRACT DOCUMENTS, including an increase or decrease of the quantity of any item or portion of the WORK, as may be deemed by the OWNER to be necessary or advisable and to require such extra WORK as may be determined by the OWNER to be required for the proper completion of the WORK as specified herein.

Should conditions make it necessary to revise the quantities, no limit will be fixed for such increased or decreased quantities nor extra compensation allowed, provided the net monetary value of all such addition or subtraction in quantities of such items of work (i.e., difference in cost) shall not increase or decrease the total original contract price by more than twenty-five percent (25%).

Any additional work not included in this contract or intended to be included in this contract that is performed by the CONTRACTOR will be paid for as an "extra" providing the work has been previously authorized and the cost agreed upon in writing by OWNER.

Such extra work shall be subject to payment by fixing the prices and the method of payment and of doing the work, or compensation shall be provided for on the basis of reasonable cost of necessary labor and material and an allowance of fifteen (15%) percent for overhead and profit as may be stipulated by OWNER in the written authorization for the WORK. The cost may include all items of labor or materials; the use of power tools, and equipment actually used, power, and all items of cost such as public liability and Workmen's Compensation Insurance, pro rata charges for foremen; also social security, old age and unemployment insurance; however, no percentage for overhead and profit shall be allowed on items of social security, old age and unemployment insurance. Among the items considered as overhead are included insurance other than mentioned above, bond or bonds, superintendence, timekeeper, clerks, watchmen, use of small tools, incidental tools and equipment shall not exceed the charges listed in the latest edition of the "Contractor's Equipment Ownership Expenses" as published by the Associated General Contractors of America, Inc.

The CONTRACTOR shall give OWNER and ENGINEER access to all accounts, bills, payrolls, and vouchers relating to such extra work, and he agrees that he shall have no claim for compensation for such extra work in the case of items not covered by unit price unless a statement in writing of the

actual cost of the same, fully itemized as to labor, materials, and other allowable costs is presented to ENGINEER before the fifteenth (15th) day of the month following that during which each specific order was complied with.

Any such changes will be set forth in a Change Order which will specify the change in WORK to be done, adjustment to Contract time, and the basis of compensation for the changes. A Change Order will not become effective until approved by the OWNER and accepted by the CONTRACTOR. After approval and acceptance, the Change Order will become a part of the CONTRACT DOCUMENTS.

### 3.08 INSURANCE REQUIREMENTS

The CONTRACTOR shall take out and maintain during the life of this Contract the various types and amount of insurance as required to protect the Public, the CONTRACTOR, the OWNER, officials and representatives of OWNER, representatives of all utility companies, state or federal department representatives, and any SUBCONTRACTOR performing work covered by this Contract from claims for property damages which may arise from operations under this Contract, whether such operations be by himself or by any SUBCONTRACTOR or anyone directly employed by either of them.

Without restricting the obligations and liabilities assumed under the CONTRACT DOCUMENTS, the CONTRACTOR shall, at his own expense, purchase and maintain in force until final acceptance of his work, the below listed forms of insurance coverage:

Certificates in quadruplicate from the insurance carrier stating the limits of liability and expiration date shall be filed with OWNER before operations begin. **Such certificates shall not merely name the types of policy provided, but shall contain a separate express statement of compliance with each of the requirements as set forth in this Section.**

All policies as hereinafter required shall be so written that the OWNER will be notified of cancellation or restrictive amendments at least thirty (30) days prior to the effective date of such cancellation or amendment.

Item A - Worker's Compensation and Employer's Liability Insurance as required or specified by Georgia State Law except that the policy must include employee's liability with a minimum limit of \$100,000 each accident, \$100,000 disease each employee with a \$500,000 disease policy limit.

This Contract shall be null and of no effect unless the CONTRACTOR shall, before entering upon the performance thereof, secure Worker's Compensation Insurance for the benefit of and keep insured, during the life of said Contract, all employees engaged thereon who are required to be insured by the laws of the State of Georgia. In case the CONTRACTOR shall subcontract any portion of the WORK, he shall require that all employees of the SUBCONTRACTOR are properly covered by such Worker's Compensation Insurance.

Item B - Comprehensive General Liability Insurance coverage shall include the following:

- 1) Property damage to existing structures and equipment;
- 2) Direction Operations (including coverage for underground, explosion and collapse hazards)
- 3) Independent Contractors

- 4) Completed Operations/Products (To be maintained for a period of at least twelve (12) months from the date of Substantial Completion)
- 5) Contractual Liability (Blanket or specific coverage for the indemnification agreement as set forth in the General Conditions)
- 6) Personal Injury Liability Coverage
- 7) Broad Form Property Damage Coverage
- 8) Care, Custody and Control Coverage
- 9) Broad Form Blanket Contractual Liability

Comprehensive General Liability Insurance shall have a minimum limit of \$1,000,000 per occurrence combined single limit for bodily injuries liability and property damage liability. The original policies for OWNER's Protection Liability Insurance shall be delivered to the OWNER prior to the start of construction.

Item C - OWNER's Protection Liability Insurance in the name of OWNER including the interest of the Consulting Engineers and other agencies and utilities as additional insured.

- 1) This policy shall have minimum limits of \$1,000,000 per occurrence combined single limit for bodily injury liability and property damage liability and shall include owned vehicles, hired and non-owned vehicles. Underlying coverage must equal \$1,000,000. Excess umbrella coverage must equal \$1,000,000.

If any part of the WORK is sublet, insurance of the same types and limits as required by Items A, B, and C shall be provided by or on behalf of the SUBCONTRACTOR(s) to cover that part of the WORK they have contracted to perform.

### 3.09 SOCIAL SECURITY

The CONTRACTOR shall be and remain an independent CONTRACTOR with respect to all services to be performed hereunder and agrees to and does hereby accept full and exclusive liability for the payment of any and all contributions or taxes for social security, unemployment insurance, or old age retirement benefits, pensions, or annuities not or hereafter imposed under any State or Federal law which are measured by wages, salaries, or other enumeration paid to persons employed by the CONTRACTOR on work performed under the terms of this Contract, and further agrees to obey all lawful rules and regulations and to meet all lawful requirements which are now or hereafter may be issued or promulgated under said respective laws by any duly authorized State or Federal officials; and said CONTRACTOR also agrees to indemnify and save harmless the OWNER from any such contributions or taxes or liability thereof.

### 3.10 ADMINISTRATION OF OVERTIME WORK

It is the intent of this Contract that the CONTRACTOR provides the necessary work force to complete the work during normal working hours within the Contract time. Normal working hours shall be defined as a day not greater than ten hours (8:00 a.m. to 6:00 p.m.) Monday through Friday with trade recognized legal holidays accepted.

No work beyond the normal working hours defined above requiring the presence of the ENGINEER or Construction Observer will be permitted, except in the case of an emergency, without the written permission of the OWNER.

Should the CONTRACTOR require the services of the OWNER's work force beyond the OWNER's normal working hours of 8:00 a.m. to 6:00 p.m. Monday through Friday, the CONTRACTOR will compensate the OWNER for the overtime pay cost incurred. A minimum of four (4) hours will be charged to the CONTRACTOR for each occurrence. The OWNER will issue a work order to the CONTRACTOR for each request for overtime services. The CONTRACTOR shall reimburse the OWNER for all such expenses by certified check or cashier check, within thirty (30) days of invoicing. Should the CONTRACTOR desire to perform scheduled overtime work, he shall make a written request to the OWNER for permission to do so. The OWNER and ENGINEER will issue a Field Order to the CONTRACTOR for the cost of all resultant project administrative and construction observation costs. The CONTRACTOR shall reimburse the OWNER by certified check or money order for all such costs incurred within thirty (30) days of invoicing.

Failure of the CONTRACTOR to reimburse the OWNER for overtime work within the specified time will result in the amount due being withheld from the CONTRACTOR's latest pay request.

### 3.11 SUBCONTRACTS

The CONTRACTOR may subcontract portions of the WORK, however, he shall not award any work to any SUBCONTRACTOR without prior written approval of the OWNER. The CONTRACTOR shall give his personal attention to the fulfillment of the Contract and shall at all times keep the WORK under his control.

### 3.12 COOPERATION WITH GOVERNMENTAL DEPARTMENTS, PUBLIC UTILITIES, ETC.

The CONTRACTOR must be aware that due to the laws of the State of Georgia, he shall be responsible for making all necessary arrangements with the governmental departments, public utilities, public carriers, service companies and corporations owning or controlling roadways, railways, water, sewer, gas, electrical, telephone, and telegraph facilities such as pavements, tracks, piping, wires, cables, conduits, poles, guys, etc., including incidental structures connected therewith, that are encountered in the WORK so that such items may be properly shored, supported and protected, or the CONTRACTOR shall comply with requirements of such parties on the Project in order that they may perform their necessary work, and shall pay all charges and fees made by such parties for this work.

The CONTRACTOR's attention is called to the fact that there may be delays on the project due to work done by governmental departments, public utilities, and others in repairing or moving poles, conduits, etc. The CONTRACTOR shall cooperate with the above parties, in every way possible, so that the construction can be completed in the least possible time.

The CONTRACTOR shall have made himself familiar with all codes, laws, ordinances, and regulations which in any manner affect those engaged or employed in the WORK, or materials and equipment used in or upon the WORK, or in any way effect the conduct of the WORK, and no plea of misunderstanding will be considered on account of his ignorance thereof.

### 3.13 RECORD DOCUMENTS AND DRAWINGS



The CONTRACTOR shall maintain at the site of the WORK, two (2) sets of CONTRACT DOCUMENTS and Drawings throughout the course of the project. One (1) set of CONTRACT DOCUMENTS and Drawings will remain clean without markup for record purposes. The CONTRACTOR shall use the additional set for marking measurements, on-site changes, items of construction that are actually used, and other conditions as they are encountered during the course of the WORK. This marked-up set of CONTRACT DOCUMENTS and Drawings shall consist of red-lined copies of plans and shop drawings, shall indicate actual field dimensions, shall represent the WORK as actually constructed, and shall be recorded on a daily basis. Failure to produce these records on request of the ENGINEER shall constitute grounds to halt construction with no time extension until steps are taken to see that these records are being properly made.

Prior to the final payment, the CONTRACTOR shall furnish to the ENGINEER two (2) neatly marked sets of construction plans which accurately depict the "as-built" conditions and locates all valves, hydrants, wyes, manholes, cleanouts, lines, laterals, taps, meters, service connections, and pump stations, equipment, materials or parts, stockpiles and other constructed appurtenances. The ENGINEER shall promptly notify the CONTRACTOR in writing if additional information is required.

### 3.14 PUBLIC CONVENIENCE AND SAFETY

CONTRACTOR shall at all times conduct the WORK in such a manner as to ensure the least practicable obstruction to public travel. The convenience of the general public and of the residents along and adjacent to the WORK area shall be provided for in a satisfactory manner, consistent with the operation and local conditions. Traffic control or warning signs shall be placed immediately adjacent to the WORK, in a conspicuous position, at such locations as traffic demands.

If at any time, in the opinion of the ENGINEER, the WORK is not properly lighted, barricaded, and in all respects safe, to public travel or adjacent property, public or private, and if under such circumstances the CONTRACTOR does not or cannot immediately put the same into proper and approved condition, or if the CONTRACTOR or his representative is not upon the grounds so that he can be immediately notified of the insufficiency of safety precautions, then the OWNER, on recommendation of the ENGINEER, may put the WORK into a condition that shall be considered safe. The CONTRACTOR shall pay all expenses of labor and materials as may have been used for this purpose by him or by the OWNER. Such action of the ENGINEER or OWNER, or their failure to take such action, shall in no way relieve the CONTRACTOR of the responsibility of any cost, loss or damage by any party sustained on account of the insufficiency of the safety precautions.

### 3.15 SHOP DRAWINGS AND SCHEDULES

At least five (5) days prior to the preconstruction conference, the CONTRACTOR shall submit to OWNER a proposed program of operation, showing how he proposes to complete his WORK within the specified time limit. This program shall outline the proposed sequence of operation, the rates of progress, projected monthly draws, and the dates when his WORK will be sufficiently advanced to permit the installation of WORK under other contracts (if applicable). The WORK under this contract shall be so scheduled that as sections are completed they can be placed into useful operation with a minimum of delay. The program shall be subject to the approval of OWNER and ENGINEER.

CONTRACTOR, at his own expense, shall submit for approval to ENGINEER, six (6) complete sets of shop drawings and schedules required for the WORK, and no WORK shall be fabricated by the CONTRACTOR, except at his own risk, until such approval has been given. Upon approval,

ENGINEER shall return two (2) sets of shop drawings to CONTRACTOR and the remaining four (4) sets will be retained by ENGINEER.

CONTRACTOR shall submit all drawings and schedules sufficiently in advance of construction requirements to allow ample time for checking, correcting, resubmitting, and rechecking; and no claim by CONTRACTOR for delays arising from his failure in this respect will be allowed.

All shop drawings submitted, if not prepared by CONTRACTOR, must bear the stamp of approval of CONTRACTOR as evidence that the drawings have been checked by CONTRACTOR. Any submissions without this stamp of approval will not be considered and will be returned to CONTRACTOR for resubmission.

Where shop drawings as submitted by CONTRACTOR indicate a departure from the Contract which ENGINEER deems to be a minor adjustment in the interest of OWNER, not involving a change in the Contract Price or Contract Time, ENGINEER shall approve the drawing, but the approval will contain, in substance, the following notation:

"The modification shown on the attached drawings is approved in the interest of the OWNER to effect an improvement for the Project and is accepted with the understanding that it does not involve any change in the Contract Price or Contract time; that it is subject generally to all Contract stipulations and covenants; and that it is without prejudice to any and all rights of the OWNER under the Contract and Bond or Bonds."

Approval by ENGINEER of shop drawings will be general and shall not relieve CONTRACTOR from the responsibility for adherence to the Contract, nor shall it relieve him of the responsibility for any error which may exist.

### 3.16 WORK IN INCLEMENT WEATHER

CONTRACTOR is presumed to have taken all difficulties due to weather conditions into consideration in preparing his proposed Contract Price and in establishing his time for completion of the WORK under this Contract. He must be prepared and must take all precautions to protect WORK from unfavorable weather and extremes of temperature, whether hot or cold. He shall provide approved facilities for protecting against unfavorable weather at all times, to the entire satisfaction of OWNER.

Completion time will not be extended for normal bad weather. Time for completion as stated in the CONTRACT DOCUMENTS includes time due to allowance for calendar days on which work cannot be performed out-of-doors. For the purpose of this Contract, CONTRACTOR agrees that he may expect to lose calendar days due to weather in accordance with the following table:

January 14 days	May 6 days	September 2 days
February 14 days	June 3 days	October 3 days
March 10 days	July 4 days	November 5 days
April 7 days	August 2 days	December 9 days

If the total accumulated number of working days lost to the weather for any month exceeds the total accumulated number to be expected for that month, time for completion will be extended by the number of calendar days needed to include the excess number of working days lost. All requests for time extensions must be submitted in writing to the OWNER by the 15th day of each month following the month that had excessive weather delays. No consideration will be given to late requests. No

changes in the contract sum will be authorized because of adjustment of contract time due to weather.

3.17 ONE YEAR CORRECTION PERIOD

The CONTRACTOR shall warrant the work for a period of one (1) year after the date of substantial completion. The correction of such work shall be prompt and at the CONTRACTOR's expense.

3.18 PROGRESS PAYMENT APPLICATION

**CONTRACTOR shall submit to ENGINEER, on forms furnished by ENGINEER, no later than the 25th day of each month,** a progress payment request for the amount of work accomplished, products furnished, and products stored at the site during the previous month. Progress payment request shall be signed by the CONTRACTOR and be supported by such data as OWNER may reasonably require. If payment is requested for products not incorporated in the WORK, but delivered and suitably stored at or near the site, the progress payment request shall also be accompanied by such supporting data, satisfactory to OWNER, as will establish OWNER's title to said products and protect his interest therein, including appropriate insurance.

ENGINEER shall, within ten (10) days after receipt of each progress payment request, either indicate in writing his recommendation of the payment request, or return the progress payment request to CONTRACTOR indicating in writing his reasons for refusing to approve it.

A progress payment will not be made when, in the judgement of OWNER or ENGINEER, the WORK is not proceeding in accordance with the provisions of these CONTRACT DOCUMENTS.

OWNER shall, within thirty (30) days after approval of progress payment request, pay CONTRACTOR a partial payment based on the approved progress payment request, less the retainage and other deductions pursuant to the terms of these CONTRACT DOCUMENTS (Reference Section 00510, Article 5 - Payment Procedures).

It is understood and agreed that the approval of the progress payment request and the paying of a partial payment shall not be construed as acceptance of any work, materials, or products and shall not relieve CONTRACTOR in any way from his responsibilities and obligations under these CONTRACT DOCUMENTS.

3.19 RETAINAGE AND FINAL PAYMENT APPLICATION (Reference Article 20)

Upon completion and after final acceptance of the WORK by the OWNER, the ENGINEER will authorize the preparation of a final pay request for the work done by CONTRACTOR and the value thereof. Preparation of the final price and final payment request will not be authorized until the affidavits, release of liens and other statements and certifications required of CONTRACTOR under these CONTRACT DOCUMENTS have been received by OWNER. ENGINEER will submit to OWNER the final price and final payment request, together with a certification stating that the work is complete and in substantial conformance with these CONTRACT DOCUMENTS. The entire balance found to be due CONTRACTOR, including retained percentages, but except such sums as may be retained under any provisions of these CONTRACT DOCUMENTS, will be paid to CONTRACTOR.

Retainage shall be in accordance with Georgia State Law, Code Sections 13-10-2, as amended.

Final payment to CONTRACTOR by OWNER shall not serve to release CONTRACTOR or his

sureties from their obligation or responsibilities under or in connection with these CONTRACT DOCUMENTS.

Acceptance by CONTRACTOR of final payment shall be and shall operate as a release to OWNER of all claims and all liability to CONTRACTOR other than claims in stated amounts as may be specifically excepted by CONTRACTOR for all things done or furnished in connection with work under these CONTRACT DOCUMENTS and for every act and neglect of OWNER and others relating to or arising out of this work.

### 3.20 EASEMENTS AND RIGHTS-OF-WAY

The WORK herein specified is located in the City of Dacula, Georgia. The CONTRACTOR's operations must be confined inside such property, rights-of-way or easement lines.

Whenever it is required as a part of this contract to perform work within the limits of private property easements or in rights-of-way, such work shall be done in conformity with all permits and agreements between the OWNER and the owners of such, and whether or not such a condition be part of the agreement, care shall be taken to avoid injury to the premises entered, which premises shall be left in a neat and orderly condition by the removal of rubbish and the grading of surplus materials and the restoration of said private property to the same general condition as existed prior to the start of construction. The CONTRACTOR shall not (without the consent from the proper parties) enter or occupy with men, tools, or equipment, any land outside the rights-of-way or private property.

### 3.21 STORING OF MATERIALS

All materials and equipment required in the WORK may be stored in areas directed by the OWNER, but all such materials, tools, and machinery shall be neatly and compactly piled in such a manner as to cause the least inconvenience to the property owners and the traffic. All fire hydrants must, at all times, be kept free and unobstructed and water and gas shut-off boxes, underground power and telephone line manholes must be left uncovered by such materials.

Materials, tools, and machinery shall not be piled or placed against shade trees unless such trees shall be amply protected against injury therefrom. All materials, tools, machinery, etc. stored upon public thoroughfares must be provided with sufficient warning lights at night time to alert traffic of such obstruction.

### 3.22 USE OF UTILITIES OR STRUCTURES

The OWNER shall have the right to connect any sewer, conduit, pipe line, or structure within the WORK and its appurtenances herein described, or to grant permits to make connection therewith, at any time after the item has been tested and approved by the ENGINEER prior to final acceptance by OWNER. The CONTRACTOR shall not interfere with the making of such connections, and no extra allowances shall be made to said CONTRACTOR on account thereof.

### 3.23 USE OF STREETS

During the process of the WORK, the CONTRACTOR shall make ample provision for both vehicular and foot traffic on any public road, and shall indemnify and save harmless the OWNER from any expense whatsoever due to his operations over said roadways. The CONTRACTOR shall also provide

free access to all driveways, fire hydrants, water and gas valves, etc., located along the line of his WORK. Gutters and waterways must be kept open or other provisions made for the removal of storm water. Street intersections may be blocked by one-half at a time, and the CONTRACTOR shall lay and maintain temporary driveways, bridges, and crossings, such as in the opinion of the ENGINEER are necessary to reasonably accommodate the public. In the event of the CONTRACTOR's failure to comply with these provisions, the OWNER may cause the same to be done, and still deduct the cost of such work from any moneys due or to become due the CONTRACTOR under this new agreement, but the performance of such work by the OWNER or at its instance, shall serve in no way to release the CONTRACTOR from his general or particular liability for the safety of the public or the WORK.

No pavement cuts are to be left unfilled overnight, except in emergencies, and in such cases, adequate precautions must be exercised to protect traffic.

### 3.24 PROTECTION OF EXISTING BUILDINGS AND STRUCTURES

The CONTRACTOR shall, at his own expense, shore up and protect any buildings, bridges, or other public or private structures which may be encountered or endangered in the execution of the WORK, and that may not be otherwise provided for, and he shall repair and make good any damages caused to any such property by reason of his operations. No payment will be made for said work or material except that such lumber as the ENGINEER may order left in place as permanent supports for these structures, shall be paid for as provided in the Specifications.

### 3.25 ACCESS ROADS

Streets, roads, and drives used by the CONTRACTOR for access to and from the sites of his work shall be protected from damage in excess of that caused by the normal traffic of vehicles used for or in connection with construction work. Any such damage done shall be repaired immediately and left in good condition at the end of the construction period. During dry periods of weather, dirt roads used for access to and from work sites shall be watered periodically to eliminate and control dust.

### 3.26 LINE AND GRADE

Alignment and grade shall be the responsibility of the CONTRACTOR.

### 3.27 WATER SUPPLY

All water for construction purposes, as well as the expense of having the water conveyed about the WORK, shall be provided by the CONTRACTOR and the cost of this work shall be included in the Unit or Lump Sum price bid for the various Items of the WORK to be done under this Contract except as indicated in Division 01. The source, quality, and quantity of water furnished shall, at all times, be acceptable to all governing agencies and the ENGINEER.

### 3.28 SEWAGE AND WATER FLOWS

The CONTRACTOR shall furnish all the necessary equipment, shall take all necessary precautions and shall assume the entire cost of handling and properly disposing of any water, sewage, seepage, storm, surface, and flood flows which may be encountered at any time during the construction of the WORK and in such manner as to not endanger or damage property. The manner of providing for these flows shall meet with the approval of the ENGINEER and the entire cost of said work shall be included in the Unit or Lump Sum Prices bid for the various Sections of the WORK to be done under this Contract.

### 3.29 REDUCTION IN PAYMENT

Items entitling Owner to set-offs from the amount recommended as described in General Conditions Article 14.02.D.1.c include, but are not limited to, OWNER compensation to Engineer at Standard Hourly Rates per extra personnel hour for labor plus expenses because of the following Contractor-caused events:

- a. Delays necessitating a time extension and performance of ENGINEER services;
- b. Witnessing retesting of corrected or replaced defective Work;
- c. Submittal reviews in excess of three reviews by ENGINEER for substantially the same submittal;
- d. Evaluation of proposed substitutes and in making changes to Contract Documents occasioned thereby;
- e. Return visits to the Project by ENGINEER for commissioning activities not performed on the initial visit;
- f. Fines levied against the OWNER for Contractor's performance on NPDES Erosion and Sedimentation Control Measures or other permit violations;

Liability for liquidated damages incurred by CONTRACTOR as set forth in the Agreement.

END OF SECTION 00800

SECTION 00820

SPECIFIC PROJECT REQUIREMENTS

PART 1 GENERAL

This Section shall consist of "Specific Regulatory Requirements and Guidelines" that shall govern the project as described within these Contract Documents. These requirements are outlined below:

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<b>DESCRIPTION</b>	<b>PAGE NUMBER</b>
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EEO Clause	00820-10 to 00820-10
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# Equal Employment Opportunity Executive Order 11246 As Amended By Executive Order 11375

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Equal Employment Opportunity  
Executive Order 11246 As Amended  
By Executive Order 11375

U.S. Department of Labor  
Employment Standards Administration  
Office of Federal Contract Compliance Programs

OFCCP-4 November 1975

Under and by virtue of the authority vested in me as President of the United States, it is ordered as follows:

PART I - NONDISCRIMINATION IN GOVERNMENT EMPLOYMENT<sup>1</sup>  
PART II- NON DISCRIMINATION IN EMPLOYMENT BY GOVERNMENT  
CONTRACTORS AND SUBCONTRACTORS

## **Subpart A - Duties of the Secretary of Labor**

1.02 SEC. 201. The Secretary of Labor shall be responsible for the administration of parts II and III of this order and shall adopt such rules and regulations and issue such orders as he deems necessary and appropriate to achieve the purposes thereof.

## **Subpart B - Contractors' Agreements**

SEC. 202. Except in contracts exempted in accordance with section 204 of this order, all Government contracting agencies shall include in every Government contract hereafter entered into the following provisions:

During the performances of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.<sup>2</sup>

(2) The contractor will in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.<sup>3</sup>

(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advertising the labor union or workers' representative of the contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

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<sup>1</sup>Secs. 101 through 106 of pt. 1 of Executive order 11246 dealing with discrimination in Federal employment were superseded by Executive Order 11478. Executive Order 11478, which is concerned exclusively with Government employment, expanded considerably the obligation of the Government itself to undertake equal employment opportunity within its own organization. Executive Order 11478 was signed by President Richard Nixon on August 8, 1969.

<sup>2</sup>Sec. 202, paragraphs (1) and (2) and sec. 203, subsec. (d) were amended by Executive Order 11375 to encompass sex discrimination. Executive Order 11375 was signed by President Richard Nixon on August 8, 1969.

<sup>3</sup>Ibid



(5) The contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.

(6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and remedies involved as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by Law.

(7) The contractor will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions including sanctions for noncompliance; Provided, however, That in the event the contractor becomes involved in, or threatened with, litigation with a subcontractor or vendor as a result of such directions by the contracting agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

SEC. 203 (a) Each contractor having a contract containing the provisions prescribed in Section 202 shall file, and shall cause each of his subcontractors to file, compliance reports with the contracting agency or the Secretary of Labor as may be directed. Compliance reports shall be filed within such times and shall contain such information as to the practices, policies, programs, and employment policies, programs, and employment statistics of the contractor and each subcontractor, and shall be in such form, as the Secretary of Labor may prescribe.

(b) Bidders or prospective contractors or subcontractors may be required to state whether they have participated in any previous contract subject to the provisions of this order, or any preceding similar executive order, and in that event to submit, on behalf of themselves and their proposed subcontractors, compliance reports prior to or as an initial part of their bid or negotiation of a contract.

(c) Whenever the contractor or subcontractor has a collective bargaining agreement or other contract or understanding with a labor union or an agency referring workers or providing or supervising apprenticeship or training for such workers, the compliance report shall include such information as to such labor union's or agency's practices and policies affecting compliance as the Secretary of Labor may prescribe: Provided, That to the extent such information is within the exclusive possession of a labor union or an agency referring workers or providing or supervising apprenticeship or training and such labor union or agency shall refuse to furnish such information to the contractor, the contractor shall so certify to the contracting agency as part of its compliance report and shall set forth what efforts he has made to obtain such information.

(d) The contracting agency or the Secretary of Labor may direct that any bidder or prospective contractor or subcontractor shall submit, as part of his compliance report, a statement in writing, signed by an authorized officer or agent on behalf of any labor union or agency referring workers or providing or supervising apprenticeship or other training, with which the bidder or prospective contractor deals, with supporting information, to the effect that the signer's practices and policies do not discriminate on the grounds of race, color, religion, sex, or national origin, and that the signer either will affirmatively cooperate in the implementation of the policy and provisions of this order or that it consents and agrees that recruitment, employment, and the terms and conditions of employment under the proposed contract shall be in accordance with the purposes and provisions of the order. In the event that the union or the agency shall refuse to execute such a statement, the compliance report shall so certify and set forth

what efforts have been made to secure such a statement and such additional factual material as the contracting agency or the Secretary of Labor may require.<sup>4</sup>

SEC 204. The Secretary of Labor may, when he deems that special circumstances in the national interest so require, exempt a contracting agency from the requirement of including any or all of the provisions of Section 202 of this order in any specific contract, subcontract, or purchase order. The Secretary of Labor may, by rule or regulation, also exempt certain classes of contracts, subcontracts, or purchase orders: (1) whenever work is to be or has been performed outside the United States and no recruitment of workers within the limits of the United States is involved; (2) for standard commercial supplies or raw materials; (3) involving less than specified amounts of money or specified numbers of workers; (4) to the extent that they involve subcontracts below a specified tier. The Secretary of Labor may also provide, by rule, regulation, or order, for the exemption of facilities of a contractor which are in all respects separate and distinct from activities of the contractor related to the performance of the contract; Provided, That such an exemption will not interfere with or impede the effectuation of the purposes of this order; And Provided further, That in the absence of such an exemption all facilities shall be covered by the provisions of this order.

#### **Subpart C- Powers and Duties of the Secretary of Labor and the Contracting Agencies**

SEC. 205. Each contracting agency shall be primarily responsible for obtaining compliance with the rules, regulations, and orders of the Secretary of Labor with respect to contracts entered into by such agency or its contractors. All contracting agencies shall comply with the rules of the Secretary of Labor in discharging their primary responsibility for securing compliance with the provisions of contracts and otherwise with the terms of this order and of the rules, regulations, and orders of the Secretary of Labor issued pursuant to this order. They are directed to cooperate with the Secretary of Labor and to furnish the Secretary of Labor such information and assistance as he may require in the performance of his functions under this order. They are further directed to appoint or designate, from among the agency's personnel, compliance officers. It shall be the duty of such officers to seek compliance with the objectives of this order by conference, conciliation, mediation, or persuasion.

SEC. 206 (a) The Secretary of Labor may investigate the employment practices of any Government contractor or subcontractor, or initiate such investigation by the appropriate contracting agency, to determine whether or not the contractual provisions specified in Section 202 of this order have been violated. Such investigation shall be conducted in accordance with the procedures established by the Secretary of Labor and the investigating agency shall report to the Secretary of Labor any action taken or recommended.

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<sup>4</sup>Ibid.

(b) The Secretary of Labor may receive and investigate or cause to be investigated complaints by employees or prospective employees of a Governing contractor or subcontractor which allege discrimination contrary to the contractual provisions specified in Section 202 of this order. If this investigation is conducted for the Secretary of Labor by a contracting agency, that agency shall report to the Secretary what action has been taken or is recommended with regard to such complaints.

SEC. 207. The Secretary of Labor shall use his best efforts, directly and through contracting agencies, other interested Federal, State, and local agencies, contractors, and all other available instrumentalities to cause any labor union engaged in work under Government contracts or any agency referring workers or providing or supervising apprenticeship or training for or in the course of such work to cooperate in the implementation of the purposes of this order. The Secretary of Labor shall, in appropriate cases, notify the Equal Employment Opportunity Commission, the Department of Justice, or other appropriate Federal agencies whenever it has reason to believe that the practices of any such labor organization or agency violate Titles VI or VII of the Civil Rights Act of 1964 or other provision of Federal law.

SEC. 208. (a) The Secretary of Labor, or any agency, officer, or employee in the executive branch of the government designed by rule, regulation, or order of the Secretary, may hold such hearings, public or private, as the Secretary may deem advisable for compliance, enforcement, or educational purposes.

(b) The Secretary of Labor may hold, or cause to be held, hearings in accordance with subsection (a) of this section prior to imposing, ordering, or recommending the imposition of penalties and sanctions under this order. No order for debarment of any contractor from further Government contractors under Section 209 (a) (6) shall be made without affording the contractors an opportunity for a hearing.

#### **Subpart D - Sanctions and Penalties**

SEC. 209. (a) In accordance with such rules, regulations, or orders as the Secretary of Labor may issue or adopt, the Secretary of the appropriate contracting agency may:

(1) Publish, or cause to be published, the names of contractors or unions which it has concluded have complied or have failed to comply with the provisions of this order or of the rules, regulations, and orders of the Secretary of Labor.

(2) Recommend to the Department of Justice that, in cases in which there is substantial or material violation or the threat of substantial or material violation of the contractual provisions set forth in Section 202 of this order, appropriate proceedings be brought to enforce those provisions, including the enjoining, within the limitations of applicable law, of organizations, individuals, or groups who prevent directly or indirectly, or seek to prevent directly or indirectly, compliance with the provisions of this order.

(3) Recommend to the Equal Employment Opportunity Commission or the Department of Justice that appropriate proceedings be instituted under Title VII of the Civil Rights Act of 1964.

(4) Recommend to the Department of Justice that criminal proceedings be brought for the furnishing of false information to any contracting agency or to the Secretary of Labor as the case may be.

(5) Cancel, terminate, suspend, or cause to be cancelled, terminated, or suspended any contract or any portion of portions thereof, for failure of the contractor or subcontractor to comply with the nondiscrimination provisions of the contract. Contracts may be cancelled, terminated, or suspended absolutely or continuance of contracts may be conditioned upon a program for future compliance approved by the contracting agency.

(6) Provide that any contracting agency shall refrain from entering into further contracts, or extensions or other modifications of existing contracts, with any noncomplying contractor, until such contractor has satisfied the Secretary of Labor that such contractor has established and will carry out personnel and employment policies in compliance with the provisions of this order.

SEC. 209. (b) Under rules and regulations prescribed by the Secretary of Labor, each contracting agency shall make reasonable efforts within a reasonable time limitation to secure compliance with the contract provisions of this order by methods of conference, conciliation, mediation, and persuasion before proceedings shall be instituted under subsection (a) (2) of this section, or before a contract shall be cancelled or terminated in whole or part under subsection (a) (5) of this section for failure of a contractor or subcontractor to comply with the contract provisions of this order.

SEC. 210. Any contracting agency taking any action authorized by this subpart, whether on its own motion, or as directed by the Secretary of Labor, or under the rules and regulations of the Secretary, shall promptly notify the Secretary of such action. Whenever the Secretary of Labor makes a determination under this section, he shall promptly notify the appropriate contracting agency of the action recommended. The agency shall take such action and shall report the results thereof to the Secretary of Labor within such time as the Secretary shall specify.

SEC. 211. If the Secretary shall so direct, contracting agencies shall not enter into contracts with any bidder or prospective contractor unless the bidder or prospective contractor has satisfactorily complied with the provisions of this order or submits a program for compliance acceptable to the Secretary of Labor, or if the Secretary so authorizes, the contracting agency.

SEC. 212. Whenever a contracting agency cancels or terminates a contract, or whenever a contractor has been debarred from further Government contracts, under Section 209 (a) (6) because of noncompliance with the contract provisions with regard to nondiscrimination, the Secretary of Labor, or the contracting agency involved, shall promptly notify the Comptroller General of the United States. Any such debarment may be rescinded by the Secretary of Labor or by the contracting agency which imposed the sanction.

### **Subpart E - Certificates of Merit**

SEC. 213. The Secretary of Labor may provide for issuance of a U.S. Government certificate of merit to employers or labor unions, or other agencies which are or may hereafter be engaged in work under Government contracts, if the Secretary is satisfied that the personnel and employment practices of the employer, or that the personnel, training, apprenticeship, membership, grievance and representation, upgrading, and other practices and policies of the labor union or other agency conform to the purposes and provisions of this order.

SEC. 214. Any certificate of merit may at any time be suspended or revoked by the Secretary of Labor if the holder thereof, in the judgment of the Secretary, has failed to comply with the provisions of this order.

SEC. 215. The Secretary of Labor may provide for the exemption of any employer, labor union, or other agency from any reporting requirements imposed under or pursuant to this order if such employer, labor union, or other agency has been awarded a certificate of merit which has not been suspended or revoked.

### **PART III- NONDISCRIMINATION PROVISIONS IN FEDERALLY ASSISTED CONSTRUCTION CONTRACTS**

SEC. 302. Each executive department and agency which administers a program involving Federal financial assistance shall require as a condition for the approval of any grant, contract, loan, insurance, or guarantee thereunder which may involve a construction contract, that the applicant for Federal assistance undertake and agree to incorporate, or cause to be incorporated, into all construction contracts paid for in whole or in part with funds obtained from the Federal Government or borrowed on the credit of the Federal Government pursuant to such grant, contract, loan, insurance, or guarantee, or undertaken pursuant to any Federal program involving such grant, contract, loan, insurance, or guarantee, the provisions prescribed for Government contracts by Section 202 of this order or such modification thereof, preserving in substance the contractor's obligations thereunder, as may be approved by the Secretary of Labor, together with such additional provisions as the Secretary deems appropriate to establish and protect the interest of the United States in the enforcement of those obligations. Each such applicant shall also undertake and agree: (1) to assist and cooperate actively with the administering department or agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with those contract provisions and with the rules, regulations, and relevant orders of the Secretary; (2) to obtain and to furnish to the administering department or agency and to the Secretary of Labor such information as they may require for the supervision of such compliance; (3) to carry out sanctions and penalties for violation of such obligations imposed upon contractors and subcontractors by the Secretary of Labor

or the administering department or agency pursuant to Part II, Subpart D, of this order; and (4) to refrain from entering into any contract subject to this order, or extension or other modification of such a contract with a contractor debarred from Government contracts under Part II, Subpart D, of this order.

SEC. 302. (a) "Construction contract" as used in this order means any contract for the construction, rehabilitation, alteration, conversion, extension, or repair of buildings, highways, or other improvements to real property.

(b) The provisions of Part II of this order shall apply to such construction contracts, and for purposes of such application, the administering department or agency shall be considered the contracting agency referred to therein.

(c) The term "applicant" as used in this order means an applicant for Federal assistance or, as determined by agency regulation, other program participant, with respect to whom an application for any grant, contract, loan, insurance, or guarantee is not finally acted upon prior to the effective date of this part; and it includes such an applicant after he becomes a recipient of such Federal assistance.

SEC. 303 (a) Each administering department and agency shall be responsible for obtaining the compliance of such applicants with their undertakings under this order. Each administering department and agency is directed to cooperate with the Secretary of Labor, and to furnish the Secretary such information and assistance as he may require in the performance of his functions under this order.

(b) In the event an applicant fails and refuses to comply with his undertakings, the administering department or agency may take any or all of the following actions: (1) cancel, terminate, or suspend in whole or part the agreement, contract, or other arrangement with such applicant with respect to which the failure and refusal occurred; (2) refrain from extending any further assistance to the applicant under the program with respect to which the failure or refusal occurred until satisfactory assurance of future compliance has been received from such applicant; and (3) refer the case to the Department of Justice for appropriate legal proceedings.

(c) Any action with respect to an applicant pursuant to subsection (b) shall be taken in conformity with Section 602 of the Civil Rights Act of 1964 (and the regulations of the administering department or agency issued thereunder), to the extent applicable. In no case shall action be taken with respect to an applicant pursuant to clause (1) or (2) of subsection (b) without notice and opportunity for hearing before the administering department or agency.

SEC. 304. Any executive department or agency which imposes by rule, regulation, or order requirements of nondiscrimination in employment, other than requirements imposed pursuant to this order, may delegate to the Secretary of Labor by agreement such responsibilities with respect to compliance standards, reports, and procedures as would tend to bring the administration of such requirements into conformity with the administration of requirements imposed under this order: Provided, That actions to effect compliance by recipients of Federal financial assistance with requirements imposed pursuant to Title VI of the Civil Rights Act of 1964 shall be taken in conformity with the procedures and limitations prescribed in Section 602 thereof and the regulations of the administering department or agency issued thereunder.

#### **PART IV - MISCELLANEOUS**

SEC. 401. The Secretary of Labor may delegate to any officer, agency, or employee in the executive branch of the Government, any function or duty of the Secretary under Parts II and III of this order, except authority to promulgate rules and regulations of a general nature.

SEC. 402. The Secretary of Labor shall provide administrative support for the execution of the program known as the "Plans of Progress."

SEC. 403. (a) Executive Orders Nos. 10590 (Jan. 18, 1955), 10722 (Aug. 5, 1957), 10925 (Mar. 6, 1961), 11114 (June 22, 1963), and 11162 (July 28, 1964), are hereby superseded and the President's Committee on Equal Employment Opportunity established by Executive Order No. 10925 is hereby abolished. All records and property in the custody of the committee shall be transferred to the Civil Service Commission and the Secretary of Labor, as appropriate.

(b) Nothing in this order shall be deemed to relieve any person of any obligation assumed or imposed under or pursuant to any executive order superseded by this order. All rules, regulations, orders, instructions, designations, and other directives issued by the President's Committee on Equal Employment Opportunity and those issued by the heads of various departments or agencies under or pursuant to any of the executive orders superseded by this order, shall, to the extent that they are not inconsistent with this order, remain in full force and effect unless and until revoked or superseded by appropriate authority. References in such directives to provisions of the superseded orders shall be deemed to be references to the comparable provisions of this order.

SEC. 404. The General Services Administration shall take appropriate action to revise the standard Government contract forms to accord with the provisions of this order and of the rules and regulations of the Secretary of Labor.

SEC. 405. This order shall become effective 30 days after the date of this order.

LYNDON B. JOHNSON

THE WHITE HOUSE  
September 24, 1965

**E.E.O. CLAUSE: During performance of this contract, Contractor agrees as follows:**

1. Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. Contractor will take affirmative action to ensure that applicants are employed, and employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Contractor agrees to post in conspicuous places, available to employees and applicant for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
2. Contractor will, in all solicitation or advertisements for employees places by or on behalf of Contractor, state that all qualified applicant will receive consideration for employment without regard to race, color, religion, sex or national origin.
3. Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representative of Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. Contractor will comply with all provisions of Executive Order 11246 of September 2, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor.
5. Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.
6. In the event of Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be cancelled, terminated or suspended in whole or in part of Contractor may be declared ineligible for further Government contracts of federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies involved as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
7. Contractor will include the portion of the sentence immediately preceding paragraph 4.3.1 and the provisions of paragraphs 4.3.1 through 4.3.7 in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance. Provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, Contractor may request the United States to enter into such litigation to protect the interests of the United States.



**STANDARD FEDERAL EQUAL EMPLOYMENT, OPPORTUNITY CONSTRUCTION  
CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)**

1. As used in these specifications:
  - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
  - b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
  - c. "Employer Identification Number" means the Federal Social Security Number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
  - d. "Minority" includes:
    - (i) Black (all persons having origins in any of the Black African racial groups, not of Hispanic origin);
    - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
    - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
    - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CPT 60-4.5) in a Hometown Plan approved by the U. S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trade which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications. Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U. S. Department of Labor.
7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
  - a. Ensure and maintain a working environment free of harassment, intimidation and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
  - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
  - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off the street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reasons therefore, along with whatever additional actions the Contractor may have taken.
  - d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

- e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, lay-off, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed and disposition of the subject matter.
- h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

- m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
  - n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
  - o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
  - p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially desperate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex or national origin.
11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontractors as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.
15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Block Grant Program).

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Timetables	Goals for Minority Participation for each trade	Goals for Female Participation in each trade
Until Further Notice	(insert goal)*	6.9%

These goals are applicable to each non-exempt contractor's total onsite construction workforce, regardless of whether or not part of that workforce is performing work on a Federal, Federally assisted or non-Federally related project, contract or sub-contract.

The contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.
4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is (insert description of the economic area in which the contract will be performed, giving the city, SMSA or non SMSA designation, and a list of the counties included in the economic area).

\*Note: See the Federal Register, Vol 44, No. 175, dated 9-7-79, for appropriate goals arranged by economic area. The goal for female participation is 6.9% statewide.

CONSTRUCTION CONTRACT GOALS (FROM FEDERAL REGISTER, SEPT. 7, 1979)

<u>ECONOMIC AREA</u>	<u>GOAL</u>
<b>**AUGUSTA, GA.**</b>	
SMSA Counties:	27.2%
COLUMBIA	
RICHMOND	
AIKEN (SC)	
Non-SMSA Counties:	32.8%
BURKE	TALIAFERRO
EMANUAL	WARREN
GLASCOCK	ALLENDALE (SC)
JEFFERSON	BAMBERG (SC)
JENKINS	BARNWELL (SC)
LINCOLN	EDGEFIELD (SC)
MCDUFFIE	MCCORMICK (SC)

**\*\*ATLANTA, GA.\*\***

SMSA Counties:		21.2%
BUTTS	FULTON	
CHEROKEE	GWINNETT	
CLAYTON	HENRY	
COBB	NEWTON	
DEKALB	PAULDING	
DOUGLAS	ROCKDALE	
FAYETTE	WALTON	
FORSYTH		

Non-SMSA Counties:		19.5%
BANKS	JACKSON	
BARROW	JASPER	
BARTOW	LAMAR	
CARROLL	LUMPKIN	
CLARKE	MADISON	
COWETA	MORGAN	
DAWSON	OCONEE	
ELBERT	OGLETHORPE	
FANNIN	PICKENS	
FLOYD	PIKE	
FRANKLIN	POLK	
GILMER	RABUN	
GORDON	SPALDING	
GREENE	STEPHENS	
HABERSHAM	TOWNS	
HALL	UNION	
HARALSON	UPSON	
HART	WHITE	
HEARD		

**\*\*COLUMBUS, GA.\*\***

SMSA Counties:		29.5%
COLUMBUS	MUSGOGEE	
CHATTAHOOCHEE		

NON-SMSA Counties:		31.6%
CHAMBERS (ALA)	SCHLEY	
LEE (ALA)	STEWART	
HARRIS	SUMTER	
MARION	TALBOT	
MERIWETHER	TROUP	
QUITMAN	WEBSTER	

**\*\*MACON, GA.\*\***

SMSA Counties:		27.5%
BIBB	JONES	
HOUSTON	TWIGGS	

NON-SMSA Counties:		31.7%
BALDWIN	PEACH	
BLECKLEY	PULASKI	
CRAWFORD	PUTNAM	
CRISP	TAYLOR	
DODGE	TELFAIR	
DOOLY	TREUTLEN	
HANCOCK	WASHINGTON	
JOHNSON	WHEELER	
LAURENS	WILCOX	
MACON	WILKENSON	
MONROE		

**\*\*SAVANNAH, GA.\*\***

SMSA Counties:		30.6%
BYRAN	EFFINGHAM	
CHATHAM		

NON-SMSA Counties:		29.8%
APPLING	MCINTOSH	
ATKINSON	MONTGOMERY	
BACON	SCREVEN	
BULLOCH	TATTNALL	
CANDLER	TOOMBS	
COFFEE	WAYNE	
EVANS	BEAUFORT (SC)	
JEFF DAVIS	HAMPTON (SC)	
LIBERTY	JASPER (SC)	
LONG		

**\*\*ALBANY, GA.\*\***

SMSA Counties:		32.1%
DOUGHERTY		
LEE		



NON-SMSA Counties:		31.1%
BAKER	IRWIN	
BEN HILL	LANIER	
BERRIAN	LOWNDES	
BROOKS	MILLER	
CALHOUN	MITCHELL	
CLAY	RANDOLPH	
CLINCH	SEMINOLE	
COLQUITT	TERRELL	
COOK	THOMAS	
DECATUR	TIFT	
EARLY	TURNER	
ECHOLS	WORTH	
GRADY		

**\*\*JACKSONVILLE, FLA\*\***

NON-SMSA Counties:		22.2%
BRANTLEY	GILCHRIST (FLA)	
CAMDEN	HAMILTON (FLA)	
CHARLTON	LAFAYETTE (FLA)	
GLYNN	LEVY (FLA)	
PIERCE	MANON (FLA)	
WARE	PUTNAM (FLA)	
BRADFORD (FLA)	SUWANNEE (FLA)	
COLUMBUS (FLA)		

**\*\*CHATTANOOGA, TENNESSEE\*\***

SMSA Counties:		12.5%
CATOOSA		
DADE		
WALKER		

NON-SMSA Counties:		8.8%
CHATTANOOGA		
MURRAY		
WHITFIELD		

## **LABOR STANDARDS**

### **LABOR STANDARDS AND REQUIREMENTS**

Contractors performing work on this project must fulfill requirements of the Copeland Anti-Kickback Act, the Contract Work Hours Standards Act, and the Executive Non-Discrimination Order No. 11246. Section 601 of the Civil Rights Act also applies to this project. Contractor shall conform to the following requirements:

1. A copy of the applicable wage rate schedule must be posted by Contractor and maintained where it can be seen easily by all employees.
2. All employees working on the site must be paid at least once a week.
3. Rates of pay shall be at least the minimum shown on the applicable wage rate schedule for each classification.
4. Employees must be paid for overtime at one and one-half (1-1/2) times his regular rate for all time over forty (40) hours any week.
5. No classification of employees shall be employed on the project unless the classification appears on the wage rate schedule.
6. Each week as work progresses, Contractor must submit to Engineer/Architect copies of all weekly payrolls and required attachments stipulated therein. Payroll Forms may be obtained from Engineer/Architect upon request.
7. Contractors shall include the wage determination and all the labor standards provisions in all subcontracts as herein specified.
8. Contractor shall make employment records available for inspection by authorized representatives of Owner or the Department of Labor and will permit employees to be interviewed during working hours by these representatives. Payroll records will be maintained during the course of the work by Contractor, including a copy of the payroll of each subcontractor, and they shall be preserved for a period of three (3) years thereafter.

Payroll records of each subcontractor shall be submitted to principal Contractor each month and then submitted to Engineer/Architect for review each month.

9. In the event of a violation of the Labor Standards Provisions of the Contract by Contractor or any subcontractor, Owner may, after notice to Contractor, suspend further payments or proceed to terminate the Contract as provided in the Labor Standards provisions.

## **CERTIFICATION OF NON SEGREGATED FACILITIES**

By the submission of this bid, the bidder, offerer, applicant or subcontractor certifies that s/he does not maintain or provide for his/her employees any segregated facility at any of his/her establishments, and that s/he does not permit employees to perform their services at any location, under his/her control, where segregated facilities are maintained. S/He certifies further that s/he will not maintain or provide for employees any segregated facilities at any of his/her establishments, and s/he will not permit employees to perform their services at any location under his/her control where segregated facilities are maintained. The bidder, offerer, applicant or subcontractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause of this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise. S/He further agrees that (except where s/he has obtained identical certifications from proposed subcontractors for specific time periods) s/he will obtain identical certification from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause; that s/he will retain such certifications in his/her files; and that s/he will forward the following notice to such proposed subcontractors (except where proposed subcontractors have submitted identical certifications for specific time periods).

## **COMPLIANCE WITH CLEAN AIR AND WATER ACTS**

This contract is subject to the requirements of the Clean Air Act, as amended, 42 USC 1857 et seq., The Federal Water Pollution Control Act, as amended, 33 USC 1251 et seq., and the regulations of the Environmental Protection Agency with respect thereto, at 40 CFR Part 15, as amended from time to time.

In compliance with said regulations:

- 1) The Contractor shall require of subcontractors that any facility to be utilized in the performance of any nonexempt contract or subcontract is not listed in the List of Violating Facilities issued by the Environmental Protection Agency (EPA) pursuant to 40 CFR 15.20.
- 2) The Contractor will comply with all the requirements of Section 114 of the Clean Air Act, as amended (42 USC 1857c-8) and Section 308 of the Federal Water Pollution Control Act as amended, (330 USC 1318) relating to inspection, monitoring, entry, reports, and information, as well as all other requirements specified in said Section 114 and Section 308, and all regulations and guidelines issued thereunder.
- 3) The Contractor will provide prompt notice of any notification received from the Director, Office of Federal Activities, EPA, indicating that a facility utilized or to be utilized for the contract is under considerations to be listed on the EPA List of Violating Facilities.

- 4) The Contractor will include or cause to be included the criteria and requirements to paragraph (1) through (4) of this section in every nonexempt subcontract and take such action as the Government will direct as a means of enforcing such provisions.

### **PERFORMANCE, PAYMENT AND BID BONDS**

Contract Performance and Payment Bonds issued in the full amount of the contract are required by federal procurement rules if the contract is for \$20,000 or more. Note that state law requirement is \$40,000 for Performance, Payment and Bid Bonds.

A Bid Bond or other security is required by federal rules whenever the contract is for \$100,000.

Generally these bonds must be issued by a surety company satisfactory to the local government, qualified to do business in Georgia, and in a format meeting the federal and state legal requirements. The bonding company must also appear on the "List of Acceptable Sureties" published annually by the US Department of the Treasury.

### **DEBARMENT AND SUSPENSION**

Debarment and Suspension (Executive Orders 12549 and 12689) - A contract award (see 2 CFR 180.220) must not be made to parties listed on the government-wide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), "Debarment and Suspension." SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

### **BYRD ANTI LOBBYING AMENDMENT**

Byrd Anti-Lobbying Amendment (31 U.S.C. 1352) - Contractors that apply or bid for an award exceeding \$100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.

### **PROCUREMENT OF RECOVERED MATERIALS**

A non-Federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

## **DOMESTIC PREFERENCES FOR PROCUREMENTS**

- (a) As appropriate and to the extent consistent with law, the non-Federal entity should, to the greatest extent practicable under a Federal award, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products under this award.
- (b) For purposes of this section:
- (1) “Produced in the United States” means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.
  - (2) “Manufactured products” means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

END OF SECTION 00820

SECTION 00840

ADMINISTRATIVE AND PROCEDURAL ITEMS AND FORMS

**DACULA CITY HALL SEWER CONNETION**

PART 1 GENERAL

1.01 This section of the CONTRACT DOCUMENTS references the various forms and other documents that will become a part of these CONTRACT DOCUMENTS during the course of the WORK.

PART 2 MATERIALS

2.01 FORMS AND DOCUMENTS

- A. Partial Payment Estimate
- B. Contractor's Affidavit and Lien Waiver
- C. Change Order
- D. Statement of Substantial Completion

PART 3 EXECUTION

3.01 ENGINEER shall provide CONTRACTOR with sufficient copies of the above listed forms and/or documents where applicable for submittal by CONTRACTOR during course of the WORK. (Examples of the listed forms are included in this Section. CONTRACTOR may use these and/or photo copies of same for submittal)

3.02 ENGINEER shall use these forms for administrative and procedural duties. (Examples of the listed forms are included in this section)

<b>PARTIAL PAYMENT ESTIMATE</b>	Contract No. _____
	Partial Payment Estimate No. _____
	Page ____ of ____

OWNER: City of Dacula	CONTRACTOR: _____	Period of Estimate From _____ to _____
--------------------------	----------------------	---

CONTRACT CHANGE ORDER SUMMARY			ESTIMATE
NO.	ADDITIONS (\$)	DEDUCTIONS (\$)	
			1. Original Contract _____
			2. Change Orders _____
			3. Revised Contract (1 + 2) _____
			4. Work Completed* _____
			5. Stored Materials* _____
			6. Subtotal (4 + 5) _____
			7. Retainage _____
			8. Previous Payments _____
			9. Amount Due (6-7-8) _____
TOTALS	_____	_____	* Detailed breakdown attached.
NET CHANGE	_____	_____	

**CONTRACT TIME**

Original (days) _____	On Schedule: _____	Starting Date _____
Revised _____	Yes: _____	Projected Completion _____
Remaining _____	No: _____	

<p><b>CONTRACTOR'S CERTIFICATION:</b> The undersigned Contractor certifies that to the best of their knowledge, information and belief the work covered by this payment estimate has been completed in accordance with the contract documents, that all amounts have been paid by the contractor for work for which previous payment estimates were issued and payments received from the owner, and that current payment shown herein is now due.</p> <p>Contractor _____ By _____ Date _____</p> <p><b>APPROVED BY OWNER:</b> Owner <u>City of Dacula</u> By _____ Date _____</p>	<p><b>ENGINEER'S STATEMENT:</b> The undersigned states that the best of their knowledge and belief, the quantities shown in this estimate are correct.</p> <p><b>Engineer: PRECISION PLANNING, INC.</b> By _____ Date _____</p>
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CONTRACTOR'S AFFIDAVIT AND LIEN WAIVER

WHEREAS, \_\_\_\_\_ (CONTRACTOR) has been paid in full by The City of Dacula, Georgia (OWNER) for labor, materials, and/or equipment furnished under a contract dated \_\_\_\_\_, except as contained on the attached payment request.

AND WHEREAS, said labor, materials, and/or equipment was applied to real property for DACULA CITY HALL SEWER CONNECTION PROJECT located in the City of Dacula, Georgia, which is owned by OWNER.

THEREFORE, in consideration of the reliance of OWNER upon this agreement and final payment by OWNER, the CONTRACTOR does hereby:

1. Certify to OWNER that all subcontractors and suppliers to the project have been paid in full.
2. Release, waive, and forever quitclaim unto the OWNER any and all manner of liens CONTRACTOR now has or may acquire in the real property associated with Project.
3. Agree to indemnify and hold harmless OWNER, its successors or assigns, against any loss claim or lien asserted by a subcontractor or supplier against OWNER or against the real property associated with Project.

IN WITNESS WHEREOF, CONTRACTOR has caused this release to be signed by its duly authorized owner, partner, or corporate officer on the \_\_\_\_ day of \_\_\_\_\_, 2022.

Sworn to and subscribed

before me this \_\_\_\_\_  
day of \_\_\_\_\_, 2022

(NAME OF CONTRACTOR)

By: \_\_\_\_\_

Attest: \_\_\_\_\_

Notary Public





STATEMENT OF SUBSTANTIAL COMPLETION

**DACULA CITY HALL SEWER CONNECTION  
E22-057**

**Contractor:** \_\_\_\_\_

**Contract For:** \_\_\_\_\_ **Contract Date:** \_\_\_\_\_

This Statement\* of Substantial Completion applies to all Work under the Contract Documents or to the following specified parts thereof:

To: \_\_\_\_\_ City of Dacula  
OWNER

And To: \_\_\_\_\_  
CONTRACTOR

The Work to which this Statement\* applies has been observed by authorized representatives of OWNER, CONTRACTOR and ENGINEER, and that Work is hereby declared to be substantially complete in accordance with the Contract Documents on

\_\_\_\_\_  
**Date of Substantial Completion**

A tentative list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and the failure to include an item in it does not alter the responsibility of CONTRACTOR to complete all the Work in accordance with the Contract Documents. When this Statement\* applies to a specified part of the Work the items in the tentative list shall be completed or corrected by CONTRACTOR within \_\_\_\_ days of the above date of Substantial Completion.

Executed by ENGINEER on \_\_\_\_\_, 2022.

\_\_\_\_\_  
PRECISION PLANNING, INC.  
Engineer

By: \_\_\_\_\_

The CONTRACTOR accepts this Statement\* of Substantial Completion on \_\_\_\_\_, 2022.

\_\_\_\_\_  
Contractor

By: \_\_\_\_\_

The OWNER accepts the work or designated portion thereof as substantially complete and will assume full possession thereof on \_\_\_\_\_, 2022.

\_\_\_\_\_  
City of Dacula  
Owner

By: \_\_\_\_\_

\* A PROFESSIONAL ENGINEER'S STATEMENT OF CONDITIONS COMPRISES A DECLARATION OF HIS PROFESSIONAL JUDGEMENT. IT DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, NOR DOES IT RELIEVE ANY PARTY OF HIS RESPONSIBILITY TO ABIDE BY CONTRACT DOCUMENTS, APPLICABLE CODES, STANDARDS, REGULATIONS AND ORDINANCES.



# Technical Specifications

**DACULA CITY HALL SEWER CONNECTION  
RFB 2022-XXXX  
FOR THE CITY OF DACULA**



**August 2022**

## SECTION 01 02 50

### MEASUREMENT AND PAYMENT

#### PART 1 GENERAL

##### 1.01 SCOPE OF WORK

- A. This Section describes the methods by which measurement will be made of the quantities for which payment will be made for the PROJECT.

##### 1.02 MEASUREMENT OF WORK

- A. WORK shall be measured by the ENGINEER or their designated representative, with assistance from the CONTRACTOR prior to preparation of a payment request by the CONTRACTOR.
- B. Unit quantities that are measured in place shall be measured monthly. The CONTRACTOR shall give the ENGINEER a minimum of two days notice for making all required measurements.
- C. Materials that must be measured as delivered shall be measured at the time of delivery by the ENGINEER or his representative; the CONTRACTOR shall provide sufficient advance notice so that such measurements can be made.
- D. Pay items included in the “Extra Work, If Authorized by the Owner” section on the Bid Form are for any additional work that is determined to be required to complete the project but was not originally shown in the Bid Documents or is indicated “as directed by Owner”.
- E. WORK completed shall be measured for completion against the schedule of values provided by the CONTRACTOR in accordance with the General Conditions. Related work necessary for a complete and operational job, such as relocation of mail boxes removal of trees, relocation of utilities, field engineering, clearing and grubbing, traffic control, etc., not specifically identified as a pay item shall be included in the unit price bid. No additional payments will be made for such activities.

##### 1.03 PROGRESS PAYMENTS

- A. Progress payments shall be based on the quantity of units installed.
- B. All items of WORK not specifically listed in the Bid Schedule shall be considered incidental to the construction, and the cost of all such work and material shall be included in the prices bid for various items listed.
- C. All items listed for measurement and payment shall include all machinery, plant, materials and labor, etc., to successfully and satisfactorily complete WORK specified.
- D. Payment: The CONTRACTOR will receive payment only for the items listed in the Bid Schedule of his contract, and no separate payments will be made for the work under any section of the CONTRACT DOCUMENTS except as provided for in the Bid Schedule. Where measurements are required to be made by the ENGINEER, for the payment of a pay item, the failure of the CONTRACTOR to give the adequate notification or failure of

the CONTRACTOR to give the ENGINEER assistance for the measurement shall result in the forfeiture of payment for the work or item which was not measured.

- E. WORK to be paid for as a "Lump Sum" shall be measured for completion against the "Schedule of Values" provided by the CONTRACTOR and percent complete as determined by the OWNER/ENGINEER. The "Schedule of Values" shall be submitted at the preconstruction conference and shall include quantities and prices of items aggregating the total "Lump Sum" and will subdivide the work into component parts in sufficient detail to serve as the basis for progress payments during construction.

## PART 2 PRODUCTS

### 2.01 STORED MATERIALS

Partial payment shall be made for approved materials stored at the project site, provided invoices for said materials are furnished in accordance with payment request submittal.

## PART 3 EXECUTION

### 3.01 SITE PREPARATION (Section 31 10 00)

No separate measurement or payment will be made for site preparation of sewer lines or other pipes, nor for any other appurtenance facilities such as manholes, etc. Payment for all work shall be included in the unit prices bid per linear foot of the various sizes and type of pipe laid or for the number of units installed for manholes, etc. as provided for in contract Bid Form.

### 3.02 EXCAVATION AND FILL (Section 31 23 00)

No separate measurement or payment will be made for trench earth excavation for sewer lines or other pipes, nor for any other appurtenant facilities such as manholes, etc. Payment for all such excavation shall be included in the unit prices bid per linear foot of the various sizes and type of pipe or for the number of units installed for manholes, etc. as provided for in contract Bid Form.

### 3.03 ROCK REMOVAL (Section 31 23 16.26)

- A. Quantities for rock removal shall be expressed in cubic yards, as defined below, in accordance with the plans and specifications.
- B. If rock is encountered, the CONTRACTOR is to expose the rock for the length of the proposed trench. The OWNER or ENGINEER shall then attain sufficient topographic data to establish the limits of the rock to be excavated. Any other method of measurement must be approved by the OWNER.
- C. The quantity of rock to be paid for shall be calculated from the upper surface data obtained to one foot below the pipe invert multiplied by four foot trench width. No additional payment shall be made for excavation or benching beyond these limits.
- D. Unit price bid shall include breaking up and removing rock from the trench, removal and disposal of rock not suitable for backfill at an offsite location, and providing suitable backfill to replace the volume of rock removed from the trench. Payment for this work shall be included in the unit price bid for rock removal.

### 3.04 CONSTRUCTION EXITS (Section 31 25 00)

No separate measurement or payment will be made for construction exits. Payment for all work shall be included in the unit prices bid per linear foot of the various sizes and type of pipe laid or for the number of units installed for meters, valves, fire hydrants, etc. as provided for in contract bid Schedule.

3.05 FILTER GRAVEL BAG (Section 31 25 00)

Quantities for filter gravel bags shall be the number of linear feet of GDOT #57 stone wrapped in filter fabric as shown on the Drawings temporary erosion control Best Management Practices (BMP's). The quantity to be paid shall include assembly and placement of fabric-wrapped or bagged #57 stone approximately 8" high for inlet protection and prevention of soil escape from construction limits, as shown on the Drawings, and removal and disposal of all gravel bag filter from the site after soils are stabilized, and all necessary tools, equipment, labor and materials. Filter fabric and #57 stone will not be paid separately for gravel bag filters.

3.06 SILT FENCE (Section 31 25 00)

Quantities for each type of silt fence shall be the linear feet of silt fence actually installed for temporary erosion control Best Management Practices (BMP's). The quantity to be paid shall include all labor, materials, tools, and equipment necessary for furnishing, placing, maintaining, and removing each BMP. No payment will be made for silt fence that needs to be reinstalled for any reason.

3.07 PAVEMENT REPAIR (Section 32 16 13)

- A. The quantities of the various types of pavement repair shall be the actual number of square yards of paved streets, parking areas, and driveways replaced. Where trench excavations cross in paved areas, the measurement shall be continuous along the centerline of the main line times a maximum width of four (4) feet measured perpendicular to the sewer line, unless otherwise directed by the OWNER.
- B. Payment for each type of pavement furnished and installed under these specifications shall be made for the quantities determined in the manner specified above at the applicable contract price. This amount, so paid, shall be compensation in full for furnishing all labor, materials, tools, plant equipment, services and other work in connection with or incidental to the construction. No payment will be allowed for replacing or repairing unpaved street or driveway surfaces.
- C. Payment for medium-duty pavement repair shall include saw cutting existing pavement, new asphalt pavement sections, and graded aggregate base (GAB), including GAB temporarily used to bring the parking lot to grade until final asphalt patch work is completed.

3.08 CONCRETE SIDEWALK AND CURB & GUTTER REPLACEMENT (Section 32 16 13)

- A. Quantities for concrete sidewalk and curb & gutter replacement shall be expressed in linear feet to match the existing sidewalk or curb & gutter in accordance with the plans and specifications. Length shall be measured and the quantity shall be calculated from such measured dimensions.

- B. Payment for concrete sidewalk and curb & gutter replacement installed under these specifications shall be made for the quantities determined in the manner specified above. This amount, so paid, shall be compensation in full for furnishing all labor, materials, tools, equipment, services and other work in connection with or incidental to the construction of this bid item.

### 3.09 STANDARD MANHOLES (Section 02 60 10)

- A. Standard manholes shall be paid for on the basis of 0 to 6 feet of depth, as measured from the outgoing invert elevation to the top of frame. Manholes which are less than 6 feet in depth shall be paid for at the price bid for this pay item. Manholes which are greater than 6 feet in depth shall be paid for under this pay item plus pay item "Additional Vertical Feet of Manhole". The depth of the manhole shall be measured to the nearest 0.5 foot from the invert of the manhole to the top of the frame and cover.
- B. The price bid shall include, but not be limited to, all labor, equipment and material shown or indicated (except the additional vertical feet of manhole) earthwork required for excavation, all dewatering of excavations, manhole base section, concrete inverts, riser sections, brick collars, manhole steps, joint seals, cone section, brick courses for adjusting the manhole to grade, manhole frames and covers, connections to existing sewer lines, bypass pumping, all compaction, tamping and backfilling, cleanup and removal of debris, crushed stone, and all other items required to install the manholes as specified or indicated in the CONTRACT DOCUMENTS.

### 3.10 ADDITIONAL VERTICAL FEET OF MANHOLE (Section 02 60 10)

- A. The additional depth of a manhole over six feet as measured to the nearest 0.5 foot from the invert of the manhole to the top of the frame and cover will be paid for under this pay item.
- B. The price bid shall include, but not be limited to, all labor, equipment and material shown or indicated (except the standard manholes, 6 feet or less in depth), flexible boots, earthwork and rock removal required for excavation, all dewatering of excavations, riser sections, brick collars, manhole steps, joint seals, cone section, stubs for sewer and force main connections, all compaction, tamping and backfilling, cleanup and removal of debris, and all other items required to install the manholes as specified or indicated in the CONTRACT DOCUMENTS.

### 3.11 SANITARY SEWER PIPING (Section 02 73 60)

- A. The quantities of sewer pipe, for which payment will be allowed, shall be expressed in linear feet for each size and type of pipe as shown in the Bid Form and shall be the horizontal length of sewer installed complete in place as measured along the centerline of the pipe from the center of the manhole to the center of the next manhole.
- B. The price bid shall include, but not be limited to, the pipe material shown or indicated, all labor and equipment required for the installation of the sewer pipe to the depths indicated or required, clearing and removal and disposal of clearing debris, stripping, storing and replacement of top soil in lawn and garden areas, excavation, dewatering of trenches, removal and replacement of signs, mailboxes, and pipes in the path of construction activities, replacement of fences, etc., protection of existing utilities (both overhead and



underground), storm pipes, culverts, drainage ditches, all benching, sheeting and bracing, crushed stone bedding, groundwater flow dams, tamping and compaction and backfilling, traffic maintenance and protection, dressing and final grading, grassing, sodding, testing, cleanup, and all other work incidental to place the sewers as shown or indicated in the CONTRACT DOCUMENTS and preparation of as-built record drawings.

- C. No separate payment shall be made for connections to existing sewer manholes or existing sewer lines. No separate payment shall be made for locating and capping or plugging existing lines to be abandoned. The cost of this work shall be included in unit price bid for other items of work.

### 3.12 SEWER CLEAN OUT (Section 02 73 60)

- A. The quantity of sewer cleanouts shall be paid at the unit price bid for each sewer cleanout installed for this project.
- B. The price shall include, but not be limited to, the vertical sewer cleanout piping, all fittings, gaskets, bolts, glands, frame and cover, concrete, all labor, equipment, protection of existing utilities (both overhead and underground), tamping and compaction and backfilling, traffic maintenance and protection, removal and restoration or replacement of all pavement and/or landscaping including shrubs, plants, etc., grassing, testing, cleanup and all other work incidental to the installation of sewer cleanouts as shown or indicated in the CONTRACT DOCUMENTS.

### 3.13 PROTECTION, RELOCATION AND RESTORATION OF EXISTING UTILITIES (Section 02 75 00)

No separate measurement or payment will be made for protection, relocation and restoration of existing utilities for water lines or other pipes, nor for any other appurtenant facilities such as valves, fire hydrants, etc. Payment for all such work shall be included in the unit prices bid per linear foot of the various sizes and type of pipe laid as provided for in contract Bid Form.

### 3.14 SITE RESTORATION (Section 32 02 00)

No separate measurement or payment will be made for site restoration. Payment for all such work shall be included in the unit prices bid per linear foot of the various sizes and types of pipe laid as provided for in the contract Bid Form.

### 3.15 GRASSING (Section 32 92 00)

Payment for all grassing shall be per square yard of grassing established and shall include all materials, machinery and labor necessary to maintain vegetated areas until plant establishment has been achieved to the satisfaction of the ENGINEER and OWNER. No separate payment shall be made for Temporary Grassing or Mulching. Sodding as directed by the Owner will be paid under a separate line item or allowance.

### 3.16 SEPTIC TANK DEMOLITION (Section 32 92 00)

Payment for septic tank demolition shall be lump sum to include all labor, equipment and materials necessary to abandon the existing grease trap and septic system tanks in accordance with CONTRACT DOCUMENTS.

3.17 ADDITIONAL BEDDING (EXTRA WORK IF AUTHORIZED BY OWNER)

- A. The quantity to be paid for under this item shall be the actual number of tons (TN) of #57 stone bedding material placed as directed by the OWNER or ENGINEER and not shown on the Drawings.
- B. The Unit Prices Bid per ton of bedding material include any additional permit fees, maintenance charges and inspection fees required by all road departments and the furnishing of all labor, materials, tools, traffic control and appliances necessary to complete the Work as specified. Included shall be the costs of additional excavation beyond trench depth to provide firm foundation and any costs of furnishing necessary work beyond the limits of measurement as defined under these specifications and GCDWR standards and details. Payment will not be made when bedding material is used by the Contractor due to over excavation or for the Contractor's convenience.

3.18 GRADED AGGREGATE BASE (GAB) BACKFILL - (EXTRA WORK IF AUTHORIZED BY OWNER)

- A. The quantity to be paid for under this item shall be tons (TN) of Graded Aggregate Base (GAB) bedding or backfill placed and compacted as shown on the Drawings, as directed by the Owner due to unfavorable subsurface conditions that may be encountered during construction.
- B. The Unit Price Bid for ton of GAB shall include all shaping and compacting the existing roadbed, spreading, mixing, watering, compacting and shaping; removal and off-site disposal of soils, aggregate, and asphalt replaced; and labor, equipment, and materials required for placement and compaction of GAB to the limits specified and shown on the Drawings. No additional payment shall be made for GAB placed outside of the limits specified unless otherwise as directed by the Owner. Payment shall not be made when GAB is used by the Contractor due to over excavation or for the Contractor's convenience.

3.19 SODDING (EXTRA WORK IF AUTHORIZED BY OWNER)

A unit price shall be obtained for sod installation in lieu of permanent seeding, the extent of which is presently unknown. Quantities shall be expressed in square yard of sod installed. Payment for sod shall be per square yard and shall include the furnishing of all labor, materials, tools, equipment, services and other work in connection with or incidental to the bid item. Where sod is installed in lieu of permanent seeding, there will be no separate payment for permanent seeding.

END OF SECTION 01 02 50

## SECTION 01 33 00

### SUBMITTALS

#### PART 1 GENERAL

##### 1.01 REQUIREMENTS INCLUDED

- A. Pre-Bid Submittal for Equipment and Materials
1. Equipment model numbers or catalog numbers are listed in the specifications to identify a standard or quality required in this project. Alternate equipment or materials may be utilized by and furnished by the CONTRACTOR when such equipment or material has been approved by the OWNER. Prebid submittals shall be submitted to the ENGINEER for evaluation, and he shall recommend to the OWNER whether the equipment or material should be approved or disapproved. Submittals shall be made at least fifteen (15) calendar days prior to the bid opening; and if approved, the approval will be issued by addendum. Submittals made less than fifteen (15) calendar days prior to the bid opening will not allow adequate time for evaluation, and will not be considered for inclusion in the project.
  2. *THE PRE-BID SUBMITTALS SHALL LIST ANY AND ALL DEVIATIONS FROM ITEMS SPECIFIED, AND THE ADVANTAGES TO BE DERIVED IF THE DEVIATION IS APPROVED. IF NO DEVIATIONS ARE NOTED, IT WILL BE ASSUMED THAT NO SUCH DEVIATIONS EXIST, AND THE FINAL SUBMITTALS WILL ALLOW NO DEVIATIONS.*
  3. Pre-Bid Submittals shall be required for any items different than specified.
  4. The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, or those substitute or “or-equal” materials and equipment approved by ENGINEER and identified by Addendum. The materials and equipment described in the Bidding Documents establish a standard of required type, function and quality to be met and any proposed substitute or “or-equal” item. No item of material or equipment will be considered by ENGINEER as a substitute or “or-equal” unless written request for approval has been submitted by Bidder and has been received by ENGINEER at least 15 days prior to the date for receipt of Bids. Each such request shall conform to requirements of the General Conditions. The burden of proof of the merit of the proposed item is upon Bidder. ENGINEER’s decision of approval or disapproval of a proposed item will be final. If ENGINEER approves any proposed item, such approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other manner.

B. Shop Drawings and Product Data

1. CONTRACTOR shall submit complete drawings, engineering data and manufacturer's published instructions and recommendations for all equipment, materials, and products to be incorporated into WORK to ENGINEER for review and approval. Submittal of drawings and engineering data shall be in accordance with requirements of Supplementary General Provisions. Shop Drawings and/or engineering data, as appropriate, shall be submitted for the following: (including, but not limited to)
  - a. Pipe, valves, valve boxes, hydrants, fittings.
  - b. Miscellaneous iron castings, gratings, and steps.
  - c. Miscellaneous fabricated metal items including structural steel, stairs, ladders, stop plates, etc.
  - d. Concrete: Proposed mix design of each class of concrete. All concrete and masonry accessories and steel reinforcement, including bending diagrams and bar schedule, ties, spreaders, chairs, inserts, for coatings, waterstops, curing and sealing compounds, and epoxy bonding agents.
  - e. Concrete Formwork: Shop drawings and design calculations for formwork the CONTRACTOR intends to use in construction of the WORK. CONTRACTOR shall furnish said shop drawings and design calculations at no additional cost to OWNER. CONTRACTOR shall submit to ENGINEER for approval, prior to beginning of concreting operations, engineering data and manufacturer's literature on all form ties, spreaders, bar supports, form coatings, and prefabricated steel forms intended for use in the WORK.
  - f. Concrete Reinforcement: Submit shop drawings indicating sizes, spacings, locations and quantities of reinforcing steel, wire fabric, bending and cutting schedules, splicing, stirrup spacing, supporting and spacing devices.
  - g. Premixed grouts and mortars: Submit laboratory reports to ENGINEER for approval. Submittal must include sieve analysis of fine and coarse aggregate and mix design. Test results and reports required by manufacturer and testing standards shall be submitted to ENGINEER for his review.
  - h. Provide product data on all finishing products. Color samples: Submit two sets of color samples from paint manufacturers proposed for use, for individual color selections. Submit manufacturer's application instructions.
  - i. Grass seed, fertilizer, and commercial mulch.
2. Shop drawings and engineering data shall be prepared by original equipment vendors or fabricators, as applicable. Purchase specifications by CONTRACTOR or Supplier shall not be acceptable as substitute for actual vendor drawings and data.
3. Shop drawings and each item of engineering data shall bear CONTRACTOR's approved stamp as per Supplementary General Provisions.
4. Design calculations and drawings for sheeting and shoring, and concrete formwork shall bear signed and dated stamp of licensed professional engineer.
5. A sieve analysis for all purchased material and all material to be reused as pipe bedding, foundation backfill, granular backfill or select backfill.
6. The following is required for all cast in place concrete and asphalt concrete to be placed as a part of this project:
  - a. Sources(s) of materials to be used for the various types of pavement.
  - b. Detailed specifications for all materials to be used including the job mix formula for asphaltic concrete paving, application rates, etc.

## 1.02 PROCEDURES

- A. Deliver submittals to ENGINEER at digitally, unless otherwise discussed prior to submitting.
- B. Transmit each item identifying Project, CONTRACTOR, SUBCONTRACTOR, major supplier; identify pertinent drawing sheet and detail number, and specification section number, as appropriate. Identify deviations from CONTRACT DOCUMENTS. Provide space for CONTRACTOR and ENGINEER review stamps.
- C. Comply with progress schedule for submittals related to WORK progress. Coordinate submittal of related items.
- D. After ENGINEER review of submittal, revise and resubmit as required, identifying changes made since previous submittal.
- E. Distribute copies of reviewed submittals to concerned persons. Instruct recipients to promptly report any inability to comply with provisions.
- F. Submit initial construction progress schedules in duplicate within ten (10) days after date of OWNER-CONTRACTOR Agreement. After review by ENGINEER, revise and resubmit as required. Submit revised schedules with each Application for Payment, reflecting changes since previous submittal.
- G. Submit horizontal bar chart with separate bar for each major trade or operation, identifying first work day of each week.
- H. Show complete sequence of construction by activity, identifying WORK of separate stages and other logically grouped activities. Show projected percentage of completion for each item of WORK as of time of each Application for Progress Payment.
- I. Show submittal dates required for shop drawings, product data, and samples, and product delivery dates, including those furnished by OWNER and those under Allowances.
- J. Revise schedule to list change orders, for each application for payment.

## 1.04 SAMPLES

- A. CONTRACTOR shall furnish, at ENGINEER'S request, samples of materials utilized in fabrication or production of equipment, materials, products supplied under these Specifications. Cost of samples requested shall be paid for by CONTRACTOR. Samples will be tested by qualified independent testing laboratory selected by ENGINEER to determine if mechanical and chemical properties of materials supplied are in accordance with requirements of these Specifications and CONTRACT DOCUMENTS. OWNER shall pay for laboratory testing of material samples provided by CONTRACTOR. CONTRACTOR shall pay for all retests made necessary by failure of materials, etc., to conform to requirements set forth herein.
- B. Submit samples to illustrate functional characteristics of the product, with integral parts and attachment devices. Coordinate submittal of different categories for interfacing work.

C. Include identification on each sample, giving full information.

1.05 OPERATION AND MAINTENANCE MANUALS

A. Unless otherwise indicated, all items of major equipment shall be supplied with a minimum of six (6) copies of complete operation and maintenance manuals.

PART 2 PRODUCTS  
Not Used.

PART 3 EXECUTION  
Not Used.

END OF SECTION 01 33 00

SECTION 01 51 00  
TEMPORARY UTILITIES

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and other Division 1 and 0 Specifications, apply to this Section.

1.02 SUMMARY

- A. Section Includes:
  - 1. Temporary Power
  - 2. Temporary Water
  - 3. Temporary Sanitary Facilities

1.03 DEFINITIONS

- A. Temporary Utilities: Sources of electric power, water, natural gas, etc., obtained from public utilities, other main distribution systems or temporary sources that support the Contractor's activities but are not a part of the permanent construction or are not yet incorporated into the permanent construction.

1.04 PROJECT CONDITIONS AND SCHEDULING

- A. Comply with requirements of regulations, governing authorities and public utilities as to type, quantity, location and use of temporary facilities, utilities and services. Secure and maintain copies of permits, inspection reports or approvals for installation and use of temporary facilities and utilities.
- B. Maintain required temporary facilities until not needed or until Substantial Completion.

1.05 QUALITY ASSURANCE

- A. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction including, but not limited to, the following:
  - 1. Building code requirements.
  - 2. Health and safety regulations.
  - 3. Utility company regulations.
  - 4. Police, fire department, and rescue squad rules.
  - 5. Environmental protection regulations.
- B. Inspections: Arrange for authorities having jurisdiction to inspect and test each temporary utility before use. Obtain required certifications and permits.

1.06 COSTS

- A. The CONTRACTOR shall be responsible for the costs of all items necessary for the installation, maintenance, and removal of temporary power, temporary water for potable use and testing, and temporary sanitary facilities. The cost of these items shall be factored into the project unit prices. Obtain and pay for permits and inspections.

- B. CONTRACTOR shall pay costs of energy consumed.
- C. CONTRACTOR shall pay all costs necessary to provide water for temporary potable use and for testing. The cost of the water shall be factored into the project unit prices. CONTRACTOR shall reimburse OWNER at current commercial rates where such water is available.

## PART 2 – PRODUCTS

### 2.01 MATERIALS

- A. May be new or used, as adequate to serve the purpose, which will not create unsanitary conditions.
- B. Temporary Power devices and equipment shall be standard devices meeting UL requirements.

### 2.02 TEMPORARY CONSTRUCTION FACILITIES

- A. Temporary Toilet Units: Provide self-contained, single-occupant toilet units of the chemical or aerated recirculation. Provide units properly vented and fully enclosed with a glass-fiber-reinforced polyester shell or similar nonabsorbent material.
- B. Lamps and Light Fixtures: Provide general service incandescent lamps of wattage required for adequate illumination. Provide guard cages or tempered-glass enclosures where exposed to breakage. Provide exterior fixtures where exposed to moisture.
- C. Electrical Power Cords: Provide grounded extension cords. Use hard-service cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords if single lengths will not reach areas where construction activities are in progress. Do not exceed safe length-voltage ratio.
- D. Electrical Outlets: Provide properly configured, NEMA-polarized outlets to prevent insertion of 110- to 120-Volt plugs into higher voltage outlets. Provide receptacle outlets equipped with ground-fault circuit interrupters, reset button, pilot light for connection of power tools and equipment.

## PART 3 – EXECUTION

### 3.01 GENERAL INSTALLATION

- A. Use qualified personnel or services for installation of temporary facilities. Provide each facility ready to use when needed to avoid delay. Locate facilities where they will serve the Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as needed. Do not remove until facilities are no longer needed.
- B. Maintain system to provide continuous service

### 3.02 TEMPORARY WATER FACILITIES

- A. Maintain system to keep adequate pressure to outlets, including on OWNER's water system when temporary service is connected.
- B. Provide adequate pipe size to supply construction needs.
- C. Provide pumps, pressure tanks, automatic controls, and storage tanks as necessary to pressurize the system.
- D. Disinfect piping used for drinking water.



3.03 TEMPORARY SANITARY FACILITIES

- A. Clean facilities weekly, maintain a sanitary condition, and empty holding tanks when capacity exceeds half full.
- B. Provide toilet paper, paper towels, and soap in suitable dispensers.

3.06 MAINTENANCE, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.
- B. Maintenance: Maintain facilities in good operating condition until project completion.
- C. Termination and Removal: Remove each temporary facility when the need has ended, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference from the temporary facility. Repair damaged facilities, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

END OF SECTION 01 50 00

SECTION 01 57 00

TRAFFIC CONTROL

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. CONTRACTOR shall furnish all materials and labor for the installation and continuous maintenance of traffic control devices throughout the project.
- B. This item of work shall include furnishing, installing, maintaining, relocating and removing all traffic control devices used for the purpose of regulating, warning or directing traffic during the construction or maintenance of this project.
- C. Upon completion of work, warning devices are to be removed by the CONTRACTOR. If devices remain on site longer than ten (10) days after project completion, they shall be removed by the OWNER and become his property.

1.02 SAFETY

- A. The governing factor in the execution and staging of work for this project is to provide the public with the safest possible travel conditions along the roadway through the construction zone. The CONTRACTOR shall arrange his operation to keep the closing of any lane of a roadway to an absolute minimum.
- B. No work shall be started on any phase of the project until all appropriate traffic control devices are in place and in operation.
- C. CONTRACTOR is to take all practical precautions to maintain traffic flow, and provide safety of workers and the general public.
- D. At the end of each workday, contractor is to clear the roadway of all dirt and debris and add additional safety devices to maintain safe travel lanes.
- E. When not in use, all traffic control devices shall be removed, placed or covered so as not to be visible to traffic.

1.03 REFERENCES

- A. Manual for Uniform Traffic Control Devices (MUTCD) (latest edition).
- B. Georgia Department of Transportation (Ga. DOT) Standard Specifications Construction of Transportation Systems (latest edition), Section 150.
- C. Georgia Department of Transportation (Ga. DOT) Standard Construction Details (latest edition).

## PART 2 PRODUCTS

### 2.01 PRODUCTS

- A. Traffic Control Devices include: signs and their supports, signals, pavement markings, barricades with sand bags, channelizing devices, warning lights, arrowboards, flaggers, or any other device used for the purpose of regulating, warning or guiding traffic through the construction zone.
- B. All Traffic Control Devices used on this project shall conform to the plans, Ga. DOT Construction Details and Specifications, and MUTCD. No modifications will be allowed without prior written approval of the ENGINEER.
- C. Traffic Control Devices shall be in proper, acceptable condition when in use. Devices which are unclear, damaged, or not correctly positioned shall be promptly restored to fully operational condition.

## PART 3 EXECUTION

### 3.01 EXECUTION

- A. The CONTRACTOR shall be responsible for the proper location, installation, and arrangement of all traffic control devices. Special attention shall be given to advance warning signs during construction operations in order to keep lane assignment consistent with barricade placement at all times. The CONTRACTOR shall cover all Traffic Control Devices which are inconsistent with detour or lane assignment patterns during the transition from one construction stage to another.
- B. Construction signs referring to daytime lane closures during working hours shall be removed or covered during non-working hours.
- C. The CONTRACTOR shall ensure all Traffic Control Devices installed by him are operational 24 hours a day, including weekends and holidays. Provide additional inspections at regular intervals.
- D. When traveling in lanes open to public traffic, the contractor's vehicles shall always move with and not against or across the flow of traffic. These vehicles shall enter or leave work areas in a manner which will not be hazardous to, or interfere with, traffic and shall not park or stop except within designated work areas. Personal vehicles shall not park within the right of way except in specific areas designated by the OWNER.
- E. Private driveways and parking areas shall be accessible at all times unless temporary closings are necessary for construction work and the CONTRACTOR has notified the affected individuals and has approval from them.
- F. If trenches are to remain open overnight, or for an extended period of time, CONTRACTOR is to provide heavy duty cover plates to allow vehicles access.

- G. Delays to the CONTRACTOR by complying with these requirements will be considered incidental to the item for traffic control and protection, and no additional compensation will be allowed.
- H. Where flaggers are required they are to be adequately trained and qualified for the job.
- I. Where the roadway or shoulder must be left in a disturbed condition overnight, provide barricades with flashers at intervals so that they are continuously visible from either direction.
- J. When working adjacent to or over travel lanes, the CONTRACTOR shall ensure that dust or other debris from his operation does not interfere with normal traffic operations of adjacent properties.
- K. CONTRACTOR shall take full responsibility for employees parking and make suitable arrangements for vehicles so that no roadway hazards occur and that trespassing on private property does not occur.

END OF SECTION 01 57 00

SECTION 01 71 23

FIELD ENGINEERING

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

- A. General: This Section specifies administrative and procedural requirements for field-engineering services including, but not limited to, land survey work.

1.03 SUBMITTALS

- A. Submit name, address, telephone number and registration number of surveyor prior to beginning work.
- B. Upon request, submit documentation verifying accuracy of survey work. Documentation may include, but is not limited to, original field notes, worksheets, cutsheets, etc.
- C. Submit two sets of prints of "as-constructed" drawings with a surveyor's certificate verifying that elevations and locations are in conformance with the contract drawings.

1.04 QUALITY ASSURANCE

- A. Surveyor Qualifications: Engage a land surveyor registered in the state of Georgia to perform required land-surveying services.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION

3.01 SURVEY REQUIREMENTS

- A. The CONTRACTOR shall provide all construction staking using recognized surveying and engineering practices. The surveyor will locate lines, grades and locations called for in the contract drawings. The OWNER will provide a suitable number of benchmarks and monuments for the CONTRACTOR to use as a reference.
- B. "As Constructed Drawings"

CONTRACTOR shall maintain record drawings in accordance with the Supplementary General Provisions of these CONTRACT DOCUMENTS. The final "as constructed" drawings will show the horizontal location of all water lines, structures, etc. All horizontal locations shall be referenced to the established coordinate systems or to existing streets, roads or major structures. The ENGINEER will provide two sets of construction plans for the CONTRACTOR's use in completing this work.

END OF SECTION 01 71 23

## SECTION 01 74 00

### CLEANING

#### PART 1 – GENERAL

##### 1.01 RELATED DOCUMENTS

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

##### 1.02 SUMMARY

This Section includes administrative and procedural requirements for cleaning during construction and final cleaning prior to Substantial Completion.

##### 1.03 DISPOSAL REQUIREMENTS

Remove and dispose of waste materials, rubbish, debris and trash in compliance with provisions of governing laws, codes, ordinances and regulations. **Do not burn or bury rubbish, trash, debris and waste materials on Project site.**

#### PART 2 – PRODUCTS

##### 2.01 CLEANING MATERIALS

- A. Use materials which will not create hazards to health or property, and which will not damage surfaces.
- B. Use only materials and methods recommended by manufacturer of material being cleaned.

#### PART 3 – EXECUTION

##### 3.01 PERIODIC CLEANING

- A. On a regular and frequent basis during progress of WORK, perform cleaning necessary to keep Project site and adjacent properties free from unsightly and unsafe accumulation of scrap and waste materials, debris, rubbish and trash resulting from construction operations.
  - 1. Provide sufficient trash bins and containers for collection of scrap and waste material, debris, rubbish and trash.
  - 2. Provide separate, closable top metal containers for collection of oil and paint soaked rags; empty volatile substance cans and other waste products subject to spontaneous combustion.

3. Designate approved eating areas and provide covered containers conforming to local health codes for collection of waste paper and left-over foodstuffs. Enforce usage of containers by workmen.
- B. Dispose of scrap and waste materials, debris, rubbish and trash by one of the following optional methods:
1. Provide services of company regularly engaged in refuse disposal operations, including usage of large metal dump-type trash containers.
  2. Use own forces and equipment for loading, hauling and disposal.
- C. Remove accumulations of scrap and waste materials as bins and containers are filled and not less than once per week.
1. Remove containers containing products subject to spontaneous combustion daily.
  2. Remove containers containing waste paper and left-over foodstuff daily.
  3. Legally dispose of all waste materials, rubbish, volatile materials and cleaning materials off Project site.
  4. Dispose of no materials in waterways.

### 3.02 DUST CONTROL

During application of finished surface materials, including painting and decorating, employ dust control methods during cleaning operations to prevent dust from contaminating wet and freshly coated surfaces.

### 3.03 FINAL CLEANING

#### A. Site Work

1. All piles of dirt and rocks are to be removed from the work area.
2. All disturbed areas are to be grassed and mulched according to these specifications.
3. All construction debris is to be removed to an approved disposal site.
4. All streets are to be swept with a mechanical sweeper.

### 3.04 INSPECTION

Prior to occupancy by OWNER of any designated portion of WORK, conduct inspection in presence of OWNER to verify WORK is properly clean and ready for acceptance by OWNER.

END OF SECTION 01 74 00

## SECTION 01 77 00

### CONTRACT CLOSEOUT PROCEDURES

#### PART 1 - GENERAL

##### 1.01 SUMMARY

Administrative provisions for Substantial Completion and for final acceptance.

##### 1.02 RELATED REQUIREMENTS

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

##### 1.03 SUBSTANTIAL COMPLETION

- A. When the CONTRACTOR considers the work substantially complete, he shall prepare a punch list of uncompleted items and send to the ENGINEER for review. At the same time the CONTRACTOR shall request in writing that the ENGINEER schedules a pre-final inspection.
- B. The ENGINEER will review the punch list submitted by the CONTRACTOR and determine if the project is substantially complete.
- C. If the ENGINEER determines that the project is not substantially complete, he will notify the CONTRACTOR in writing which items need to be finished before the project can be considered substantially complete. The CONTRACTOR shall continue working to complete all punch list items and resubmit a revised punch list when he considers the work is substantially complete.
- D. When the ENGINEER determines that the work is substantially complete, he will schedule a pre-final inspection with the OWNER, CONTRACTOR and ENGINEER. A final punch list will be prepared at this time.
- E. After all punch list items have been completed, the CONTRACTOR shall send a request in writing to the ENGINEER to schedule a final inspection. When all punch list items are complete, the ENGINEER will issue a certificate of substantial completion.

##### 1.04 FINAL COMPLETION

- A. When the CONTRACTOR considers that all of the WORK is complete, he shall submit the following certificates:
  - 1. All WORK has been completed and inspected for compliance with the CONTRACT DOCUMENTS and all deficiencies listed with the certificate of substantial completion have been corrected.
  - 2. All equipment and systems have been tested, adjusted and are fully operational.
  - 3. OWNER's personnel have been fully instructed in the operation of all equipment (include sign off for each system).



4. WORK is complete and ready for final inspection.
- B. Should ENGINEER's inspection find WORK incomplete, he will promptly notify CONTRACTOR in writing listing observed deficiencies.
- C. CONTRACTOR shall remedy deficiencies and send a request for another final inspection.
- D. When ENGINEER finds work is complete, he will process final pay request documents.

#### 1.05 REINSPECTION FEES

Should status of completion of WORK require reinspection by ENGINEER due to failure of WORK to comply with CONTRACTOR's claims on pre-final or final inspection, the OWNER will back charge the CONTRACTOR for each extra reinspection required of the ENGINEER. The CONTRACTOR shall reimburse the OWNER by certified check prior to final payment of retainage.

#### 1.06 CLOSEOUT SUBMITTALS

- A. Evidence of Compliance with Requirements of Governing Authorities: Completed form included at the end of this Section.
- B. Project Record Documents
- C. Evidence of Payment and Release of Liens: In accordance with Conditions of the Contract.
- D. Consent of Surety to Final Payment.

Consent of Surety is to be sent by Surety directly to Precision Planning, Inc. to the attention of Kurt Mueller.

#### 1.07 APPLICATION FOR FINAL PAYMENT

- A. Prior to application for final payment, the CONTRACTOR shall give the ENGINEER a list of all additions or deletions not previously approved by change order.
- B. The ENGINEER will review this list and prepare a final close-out change order for the items that are justified by the terms of the contract or approved by field order.
- C. After approval of the final close-out change order, the CONTRACTOR may submit his application for final payment.

#### PART 2 PRODUCTS

Not Used.

#### PART 3 EXECUTION

Not Used.

CITY OF DACULA, GEORGIA

\_\_\_\_\_, CONTRACTOR, for the above referenced project, and the City of Dacula, OWNER, hereby certify that "as-constructed" drawings for the above-referenced project have been prepared by the CONTRACTOR and provided to the OWNER. The OWNER and CONTRACTOR further certify that the CONTRACTOR has provided the OWNER with all maintenance and operation instructions, and product warranties, and that the OWNER, or OWNER's representative has been trained in the maintenance and operations of the systems installed.

The OWNER and the CONTRACTOR understand that the CONTRACTOR's warranty for the project begins on the date of substantial completion and remains in effect for a period of 1 year. The OWNER understands that he/she shall direct warranty concerns to the CONTRACTOR, during this warranty period and to the product manufacturers for warranties beyond this time period.

\_\_\_\_\_  
CONTRACTOR

\_\_\_\_\_  
Date

\_\_\_\_\_  
CITY OF DACULA AUTHORIZED REPRESENTATIVE

\_\_\_\_\_  
Date

\_\_\_\_\_  
PRECISION PLANNING, INC.

\_\_\_\_\_  
Date

END OF SECTION 01 77 00

## SECTION 01 78 39

### PROJECT RECORD DOCUMENTS

#### PART 1 – GENERAL

##### 1.01 SUMMARY

- A. Section Includes:
  - 1. Maintenance of project record documents
  - 2. Record drawings or "as-builts"
  - 3. Record specifications
  - 4. Operations and Maintenance manuals

##### 1.02 SUBMITTALS

- A. Project Record Documents: Project record documents consist of three (3) submittals: Record Drawings, Record Specifications, and Operations and Maintenance Manuals. These submittals shall be provided to the Owner through the Engineer after the Date of Substantial Completion inspection.
  - 1. For Record Drawings, submit one (1) set of neatly marked sets of construction plans to the Engineer in form of opaque prints, marked and altered as required in this Section. Submit all drawings, whether or not they have been modified.
  - 2. For Record Specifications, submit to Engineer one (1) legible set marked or altered as required in this Section.
  - 3. For Operations and Maintenance Manuals, submit to Engineer three (3) complete sets prepared in the manner described herein.

#### PART 2 – PRODUCTS (Not Used)

#### PART 3 – EXECUTION

##### 3.01 MAINTENANCE OF PRODUCT RECORD DOCUMENTS

- A. Assign a person responsible for preparing and maintaining all record documents. Maintain the record documents in a secure location at the Project site but insure that they are accessible to Contractor and Engineer during normal working hours. Do not use the record documents for any type of construction purposes in the field.
- B. Record information on record documents as soon as possible after it is obtained. Mark Drawings and Specifications with a red pencil; make certain all notations are clearly legible. Incorporate into existing sets all new Drawings or Specifications issued by Engineer. Mark shop drawings if better suited to show the actual work.

##### 3.02 RECORD DRAWINGS

- A. Maintain a complete set of opaque prints of the Drawings, including all sheets issued by ENGINEER for addenda, clarifications or modifications. Record all information that indicates how the actual work differs from the Drawings and shows the details of installation that will not be obvious upon completion of construction, including:
  - 1. Existing conditions in variance with Contract Documents.

2. Locations and depths of underground utilities.
  3. Actual equipment locations.
  4. Changes made by Change Order.
  5. Changes made by Field Order or directives.
  6. Details not on original Contract Drawings.
  7. Dimensional or location changes.
  8. New information that may be useful to the Owner, which was not shown in Contract Documents or subsequent product submittals, including details or clarifications issued by ENGINEER as responses to Contractor's requests.
- B. Where a record drawing also is required as part of Operations and Maintenance Manuals, copy notations and marks to another copy of applicable drawings for said purpose. Also mark shop drawings as may be necessary for use in such manuals.
- C. Responsibility for Markup: The individual or entity who obtained record data, whether the individual or entity is the installer, subcontractor, or similar entity, shall prepare the markup on Record Drawings. Contractor has responsibility to insure that this record is maintained.
1. Accurately record information in an understandable drawing technique.
  2. Record data as soon as possible after obtaining it. Record and check the markup prior to enclosing concealed installations.
  3. At time of Final Completion, submit Record Drawings to the Engineer for the Owner's records.

### 3.03 RECORD SPECIFICATIONS

- A. Maintain a complete set of Specifications, including all pages issued by Engineer for addenda, clarifications, and modifications. Record all information that indicates how the actual work differs from the Specifications, including:
1. Product substitutions.
  2. Changes made by Contract modifications, cross-referenced to applicable modifications.
  3. New information that may be useful to the Owner, which was not shown in Contract Documents or subsequent product submittals, including details or clarifications issued by Engineer as responses to Contractor's requests.

### 3.04 RECORD PRODUCT DATA

- A. During the construction period, maintain one (1) copy of each Product Data submittal for Project Record Document purposes.
1. Mark Product Data to indicate the actual product installation where the installation varies substantially from that indicated in Product Data submitted. Include significant changes in the product delivered to the site and changes in manufacturer's instructions and recommendations for installation.
  2. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
  3. Note related Change Orders and markup of Record Drawings, where applicable.
  4. Upon Final Completion, submit a complete set of Record Product Data to the Engineer for the Owner's records.

5. Where Record Product Data is required as part of maintenance manual, submit marked-up Product Data as an insert in the manual instead of submitting as Record Product Data.

### 3.05 MISCELLANEOUS RECORD SUBMITALS

- A. Refer to other Specification Sections for miscellaneous record-keeping requirements and submittals in connection with various construction activities. Immediately prior to Final Completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for use and reference. Submit to the Engineer for the Owner's records.
  1. Categories of requirements resulting miscellaneous records may include, but are not limited to, the following:
    - a. Field records on underground construction.
    - b. Inspections and certifications by governing authorities.
    - c. Leakage and water-penetration tests.
    - d. Final inspection and correction procedures.

### 3.06 OPERATIONS AND MAINTENANCE MANUALS

- A. Assemble and submit three (3) sets of hard bound, loose-leaf operations and maintenance manuals for the systems, equipment, finishes and other building components listed below in this section and otherwise provided for in the Specifications. Bind in individual heavy-duty, two-inch, three-ring binders, with pocket folders for folded sheet information and dividers with labeled index tabs. Label each manual on front and spine, indicating the project name and the nature of the information included in the manual. All text, drawings and diagrams shall be legible and presented in an organized and coherent fashion.
- B. The Operations and Maintenance Manuals shall include information on the following building components:
  1. HVAC system, including equipment, distribution and controls.
  2. Electrical power system, including equipment, distribution, receptacles and connections.
  3. Electrical lighting.
  4. Electrical powered equipment purchased and installed by Contractor.
  5. Plumbing system and fixtures.
  6. Miscellaneous equipment purchased and installed by Contractor.
  7. Building accessories.
  8. Interior finishes, including floor coverings, ceiling tile, paints and wallcoverings and any other finishes requiring special treatment.
  9. Finish hardware.
  10. Doors.
- C. For each of these components provide the following information as applicable to the component:
  1. Responsible subcontractor with address and phone number.
  2. Local supplier(s) with address and phone number.
  3. Nearest service organization (if applicable) with address and phone number.
  4. Operating instructions.
  5. Emergency instructions.
  6. Spare parts/stock list.

7. Warranties.
8. Preventive maintenance requirements.
9. Cleaning requirements and instructions.
10. Product data and shop drawings (referenced if maintained elsewhere).
11. Wiring diagrams.
12. Fixture schedule.

END OF SECTION 01 78 39

## SECTION 02 22 50

### EARTHWORK FOR UTILITIES

#### PART 1 GENERAL

##### 1.01 SCOPE OF WORK

Work under this section shall include all operations necessary for excavating, backfilling and compaction of material necessary for the construction of pipelines and all appurtenant facilities including concrete saddles, pipe protection, etc., and for the disposal of waste and unsuitable materials.

##### 1.02 REFERENCES

- A. American Society for Testing and Materials (ASTM), Annual Book of Standards
  1. ASTM D 698, Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400) ft-lbf/ft<sup>3</sup>).
  2. ASTM D 2321, Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications.
  3. ASTM D 2922, Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
- B. Occupational Safety and Health Administration (OSHA), Code of Federal Regulations 29 CFR Part 1926, Subpart P – Excavation, latest revision.

##### 1.03 GENERAL

Elevations of the existing ground and the elevations of existing grades of structures are believed to be reasonably correct, but do not purport to be absolutely so, and, together with any schedule of quantities are presented only as an approximation. The CONTRACTOR shall satisfy himself, however, by actual examination of the site of the WORK as to the existing elevations and the amount of work required under this section. If the CONTRACTOR is not willing to accept any ground surface elevations indicated upon the Drawings for payment, he shall so notify the ENGINEER prior to starting any excavation work.

#### PART 2 PRODUCTS

##### 2.01 BEDDING STONE

Class IA or IB aggregate materials in accordance with ASTM D 2321.

##### 2.02 BACKFILL

Reused or imported earth free of stone, clods, broken rock, or concrete larger than 3 inches in largest dimension, or organic matter, rubbish, or other unsuitable material.

## PART 3 EXECUTION

### 3.01 INSPECTION

- A. Verify bedding and backfill material to be used are acceptable. Do not use frozen material.
- B. Verify areas to be backfilled are free of debris, snow, ice, or water, and surfaces are not frozen.

### 3.02 PREPARATION

- A. Identify required lines, levels, contours, and datum.
- B. When necessary, compact subgrade surfaces to density requirements for backfill material.

### 3.03 SHEETING, SHORING AND BRACING

- A. CONTRACTOR shall be responsible for supporting and maintaining all excavations required even to the extent of sheeting and shoring the sides and ends of excavations with timber or other supports. All sheeting, shoring and bracing shall have sufficient strength and rigidity to withstand the pressure exerted and to conform with OSHA 29 CFR Part 1926, Subpart P – Excavations, latest revision.
- B. Excavations adjacent to existing or proposed utilities, buildings and structures, or in paved streets or alleys shall be sheeted, shored and braced adequately to prevent undermining beneath or subsequent settlement of such structures or pavements. Underpinning of adjacent utilities and structures shall be done when necessary to maintain utilities and structures in safe condition. The CONTRACTOR shall be held liable for any damage resulting to such utilities, structures or pavements as a result of his operations.
- C. The need and adequacy of sheeting, shoring, bracing, or other provisions to protect men and equipment in a trench or other excavation shall be the sole and exclusive responsibility of CONTRACTOR.

### 3.04 EXCAVATION

- A. Trench Excavation
  - 1. Trench excavation shall consist of the removal of materials necessary for the construction of pipelines and all appurtenant facilities including collars, concrete saddles, and pipe protection called for on Drawings.
  - 2. Excavation for pipelines shall be made in open cut unless otherwise shown on Drawings. Trenches shall be cut true to lines and grades shown on Drawings. Minimum pipe cover shall be 48” measured from the top of pipe to the ground surface.
  - 3. Use of motor-powered trenching machine will be permitted but full responsibility for the preservation, replacement, and/or repair of damage to any existing utility services and private property shall rest with CONTRACTOR.



4. Bell holes for bell and spigot pipe and/or mechanical joint pipe shall be excavated at proper intervals so the barrel of the pipe will rest for its entire length upon the bottom of the trench or bedding material.
  5. Pipe trenches shall not be excavated more than 400 feet in advance of pipe laying and all work shall be performed to cause the least possible inconvenience to the public. Adequate temporary bridges or crossings shall be constructed and maintained where required to permit uninterrupted vehicular and pedestrian traffic.
  6. Unless otherwise specified herein or shown on Drawings, wherever pipe trenches are excavated below elevation shown on Drawings, CONTRACTOR, at his own expense, shall fill the void thus made to proper grade with Class D concrete or with compacted layers of crushed rock or other material conforming to requirements specified herein for backfill.
  7. In all cases where materials are deposited along open trenches they shall be placed so that no damage will result to the WORK and/or adjacent property in case of rain or other surface wash.
  8. Remove soft, spongy, or otherwise unstable materials encountered at elevation of pipe which will not provide a firm foundation for the pipe. Extend bedding depth as necessary to reach firm materials.
- B. Any unauthorized excavation shall be corrected at the CONTRACTOR's expense.
- C. Protect bottom of excavations and soil adjacent to and beneath foundations from frost.
- D. Grade top perimeter of excavation to prevent surface water run-off into excavation.
- E. Notify ENGINEER of unexpected subsurface conditions and discontinue work in affected area until notification to resume work.

### 3.05 DEWATERING

- A. CONTRACTOR shall provide and maintain at all times during construction, ample means and devices with which to promptly remove and properly dispose of all water from any source entering the excavations or other parts of the WORK. Dewatering shall be accomplished by methods which will ensure a dry excavation and preservation of final lines and grades of bottoms of excavations. Methods of dewatering may include sump pumps, well points, deep wells, or other suitable methods which do not damage or weaken structures, foundations, or subgrades. Shallow excavations may be dewatered using open ditches provided such ditches are kept open and free-draining at all times. Dewatering methods used shall be acceptable to ENGINEER. Footing pits or trenches shall be protected by small earth dikes and plastic covers when they are left open in rainy weather.
- B. Unless specifically authorized by ENGINEER, groundwater encountered within the limits of excavation shall be depressed to an elevation not less than twelve (12) inches below the bottom of such excavation before pipe laying or concreting is started and shall be so maintained. No concrete structures shall be exposed to unequal hydrostatic forces until the concrete has reached its specified 28-day strength. Water shall not be allowed to rise above bedding during pipe laying operations. CONTRACTOR shall exercise care to prevent damage to pipelines or structures resulting from flotation, undermining, or scour. Dewatering operations shall commence when ground or surface water is first encountered and shall be

continued until such times as water can safely be allowed to rise in accordance with provisions of this section.

- C. Standby pumping equipment shall be kept on the job site. A minimum of one standby unit (one for each ten in the event well points are used) shall be available for immediate installation should any pumping unit fail. Installation of well points or deep wells shall be adequately sized to accomplish the WORK. Drawings or design of proposed well point or deep well dewatering systems shall be submitted to ENGINEER for review.
- D. CONTRACTOR shall not operate dewatering devices (i.e., pumps, etc.) before the hour of 8:00 AM and after the hours of 8:00 PM in a residential area unless otherwise approved by ENGINEER or OWNER.
- E. If foundation soils are disturbed or loosened by the upward seepage of water or an uncontrolled flow of water, the affected areas shall be excavated and replaced with foundation backfill at no cost to OWNER. Foundation backfill shall be placed in bottom of trench to within 6" of the bottom of pipe. Six (6) inches of bedding stone shall be placed over the top of the foundation backfill.
- F. CONTRACTOR shall dispose of water from the WORK in a suitable manner without damage to adjacent property. Conveyance of water shall be such as to not interfere with construction operations or surrounding property owners. No water shall be drained into WORK built or under construction without prior consent of ENGINEER. CONTRACTOR will be held responsible for the condition of any pipe or conduit which he may use for drainage purposes, and all such pipes or conduits shall be left clean and free of sediment.
- G. Storm water runoff shall be controlled by means of temporary erosion control methods specified in Section 02270, as shown on Drawings, or as directed by ENGINEER.
- H. Water shall be disposed of in such a manner as not to be a menace to public health and in accordance with applicable Environmental Protection Agency, Corps of Engineers, and State Environmental Protection Division standards and permits.

### 3.06 BEDDING/BACKFILLING

- A. The backfilling of trenches shall be started immediately after construction of same has been viewed by the Project Observer. Bedding and backfill material shall be earth or aggregate in accordance with Part 2 and the Drawings. Material shall be deposited in the initial horizontal layer to the spring line of the pipe (before compaction) on each side of the pipe. The initial layer shall be thoroughly tamped or rammed around the pipe until the initial layer's density is equal to the density of the adjacent undisturbed soils. The second bedding material layer shall be deposited horizontally to a depth to provide a cover of 12 inches over top of pipe. The remainder of the backfill shall be placed in horizontal layers 18 inch (maximum) in depth. The second and subsequent bedding/backfill layers shall be compacted by compaction tools to a density equal to or greater than the density of the adjacent undisturbed soils, except under roads, structures, and driveways.
- B. Compact aggregate and soil backfill under roads, structures, and driveways to a minimum of 95% of maximum dry density at not less than 2% below nor more than 2% above the optimum moisture content as determined by ASTM D 698.

- C. All backfilling shall be done in such a manner that the pipe or structure over or against which it is being placed will not be disturbed or injured. Any pipe or structure injured, damaged or moved from its proper line or grade during backfilling operations shall be removed and repaired to the satisfaction of OWNER and then re-backfilled.
- D. Backfilling shall not be done in freezing weather except by permission of the ENGINEER, and shall not be done with frozen material or upon frozen materials.
- E. All backfilling shall be left with smooth, even surfaces, properly graded and shall be maintained in this condition until final completion and acceptance of the work. Where directed by the ENGINEER, the backfill shall be mounded slightly above the adjacent ground.
- F. Leave stockpile areas completely free of excess fill materials. After construction and cleanup, stockpile areas shall be seeded.

### 3.07 SUBSURFACE OBSTRUCTIONS

- A. In excavating, backfilling, and laying pipe, care must be taken not to remove, disturb, or injure any existing water, telephone, gas pipes, storm drainage pipe, headwalls or catch basins, or other conduits or structures, without the approval of the ENGINEER. If necessary, the CONTRACTOR at his own expense, shall sling, shore up, and maintain such structures in operation, and shall repair any damage to them. Before final acceptance of the work, he shall return all such structures to as good condition as before the work started.
- B. The CONTRACTOR shall give sufficient notice to the interested utility of his intention to remove or disturb any pipe, conduit, etc., and shall abide by their regulations governing such work. In the event that any subsurface structure becomes broken or damaged in the execution of the work, the CONTRACTOR shall immediately notify the proper authorities, and shall be responsible for all damage to persons or property caused by such breaks. Failure of the CONTRACTOR to promptly notify the affected authorities shall make him liable for any needless loss so far as interference with the normal operation of the utility.
- C. When pipes or conduits providing service to adjoining buildings are broken during progress of the work, the CONTRACTOR shall repair them at once.
- D. Delays such as would result in buildings or residences being without services overnight or for a needlessly long period during the day will not be tolerated. Should it become necessary to move the position of a pipe, conduit or structure, it shall be done by the CONTRACTOR in strict accordance with the instructions given by the ENGINEER or the utility involved.
- E. The OWNER or the ENGINEER will not be liable for any claim made by the CONTRACTOR based on underground obstructions being different from that indicated in these CONTRACT DOCUMENTS or Drawings.

### 3.08 BORROW EXCAVATION

Wherever the backfill of excavated areas or the placement of embankments or other fills require material not available at the site, suitable material shall be obtained from other sources. This may require the opening of borrow pits at points not immediately accessible to the WORK. In such cases, CONTRACTOR shall make arrangements with the property owner and shall pay all costs incident to the borrowed material including royalties, if any, for the use of the material. Before a borrow pit is opened, the quality and suitability of the material to be obtained shall be approved by the ENGINEER. Any soil tests required for approval of the borrowed material proposed, shall be at the OWNER's expense.

### 3.09 DISPOSAL OF WASTE AND UNSUITABLE MATERIALS

- A. Materials removed by excavation, which are suitable for the purpose, shall be used to extent possible for backfilling pipe trenches and for making embankment fills, subgrades or for such other purposes as may be shown on Drawings. Materials not used for such purposes shall be considered waste material and shall be disposed of at the CONTRACTOR's expense.
- B. Waste materials shall be spread in uniform layers and neatly leveled and shaped. Spoil banks shall be provided with sufficient and adequate openings to permit surface drainage of adjacent lands.
- C. Unsuitable materials, consisting of rock, wood, vegetable matter, debris, soft or spongy clay, peat, and other objectionable material so designated by the ENGINEER, shall be removed from the work site and disposed of by CONTRACTOR at his expense.
- D. No waste material shall be dumped on private property unless written permission is furnished by owner of property and unless a dumping permit is issued from local jurisdiction.

### 3.10 TESTING

- A. Compaction of fill and backfill to the specified moisture-density relationship of soils shall be verified by in-place density tests using ASTM D 2922 or other ASTM in-place density tests approved by the ENGINEER. Maximum density determination and in-place density tests shall be performed by a soils technician chosen by the OWNER and paid for by the CONTRACTOR. Frequency and location of tests shall be adequate to ensure proper compaction has been achieved.
- B. Areas not meeting the required compaction shall be recompacted until the desired degree of compaction is achieved.

### 3.11 PROTECTION

Protect excavation by shoring, bracing, sheet piling, underpinning, or other methods required to prevent cave-in of loose soil into excavation. Protection shall be in accordance with OSHA 29 CFR Part 1926, Subpart P-Excavations, latest revision.

### 3.12 FINAL GRADING

- A. After other earthwork operations have been completed, finished surfaces shall be left in smooth and uniform planes such as are normally obtainable from use of hand tools. If CONTRACTOR is able to obtain required degree of evenness by means of mechanical equipment, he will not be required to use hand labor methods. Slopes and ditches shall be neatly trimmed and finished.
- B. Unless otherwise specified or shown on the Drawings, all finished ground surfaces shall be graded and dressed to present a surface varying not more than plus or minus 0.10 foot. Any finished surfaces resulting in inadequate drainage or washouts shall be corrected by the CONTRACTOR at his expense.

### 3.13 SETTLEMENT

- A. CONTRACTOR shall be responsible for all settlement of backfill, fills, and embankments which may occur during warranty period.
- B. CONTRACTOR shall make, or cause to be made, all repairs or replacements made necessary by settlement within 30 days after receipt of written notice from ENGINEER or OWNER.

END OF SECTION 02 22 50

## SECTION 02 27 00

### TEMPORARY EROSION CONTROL

#### PART 1 GENERAL

##### 1.01 SCOPE OF WORK

- A. Erosion control shall be employed during the construction period and shall include all measures required to prevent soil erosion from the site until permanent erosion control measures are installed. WORK shall be accomplished through, but not limited to, the use of berms, dikes, sediment barriers, sediment traps, sediment basins, silt fences, temporary grasses, check dams, mulching, construction exits and slope drains.
- B. Erosion control measures described herein shall be continued until such time as permanent planting and restoration of natural areas is effectively in control of erosion from project site.
- C. Failure to install and maintain temporary erosion control measures throughout the construction period may be cause to halt construction by governing authorities until such measures are correctly installed and operational.
- D. CONTRACTOR shall comply with applicable codes, rules, ordinances, regulations, and laws of local, municipal, state or federal authorities having jurisdiction over project.
- E. CONTRACTOR shall comply with the State of Georgia Erosion and Sedimentation Control Act (latest revision) and State of Georgia DNR EPD General Permit No. GAR 100002.

##### 1.02 REFERENCES

- A. American Association of State Highway and Transportation Officials (AASHTO), M 288, Standard Specification for Geotextile Specification for Highway Applications.
- B. "Manual for Erosion and Sediment Control in Georgia" published by the State Soil and Water Conservation Committee of Georgia.
- C. Georgia Department of Transportation (GDOT) Standard Specifications Construction of Transportation Systems, latest edition.

##### 1.03 PROJECT/SITE CONDITIONS

Coordinate temporary pollution control provisions with permanent erosion control features to assure economical, effective, and continuous erosion control throughout construction and post-construction periods.

## PART 2 PRODUCTS

### 2.01 FILTER FABRIC

- A. Geotextile filter cloth material shall be pervious sheets of strong, rot-proof plastic fabric meeting the requirements of AASHTO M 288 for Sediment Control Fabrics.
- B. Silt fence shall be constructed in accordance with details shown on Drawings or may be a prefabricated proprietary type subject to approval by ENGINEER.

### 2.02 HAY BALE BARRIERS

Hay bales shall be well compacted straw, standard size, wire bound. Hay bales may be used as an alternate to silt fence as approved by ENGINEER.

### 2.03 GRASS

- A. Grass seed for temporary erosion control shall be applied at the rates and dates indicated on the Drawings.
- B. For additional information regarding temporary grassing and mulching, see the "Manual for Erosion and Sediment Control in Georgia".

### 2.04 FERTILIZER

- A. Commercial grass fertilizer with a 10N-10P-10K proportion.
- B. Agricultural lime to be applied at a rate of one (1) ton per acre.

### 2.05 MULCH

- A. Dry straw or hay of good quality, free of weed seed - spread at a rate of 2 ½ tons per acre.
- B. Wood waste, chips, sawdust or bark - spread 2 to 3 inches deep (about 6 to 9 tons per acre).
- C. Erosion control matting or netting, such as excelsior, jute, textile and plastic matting, and netting applied in accordance with manufacturer's recommendations.

### 2.06 EXCELSIOR MATTING

Curled wood excelsior blanket matting in accordance with GDOT Standard Specification Section 713.2.B. Staples shall be used to anchor the matting. U-shaped wire (11-gauge or greater) staples with legs at least 6-inches in length shall be used.

## PART 3 EXECUTION

### 3.01 GENERAL

- A. Temporary erosion control shall be directed toward and have the purpose of controlling soil erosion at its potential source. Downstream sediment entrapment measures shall be employed, but only as a backup to primary control at the source.
- B. A continuing program of installation and maintenance of sediment control measures shall be employed during the construction period.
- C. Erosion Control Schedule
  - 1. Prior to the pre-construction conference, CONTRACTOR shall submit to the ENGINEER his proposed erosion control plan for the project in accordance with requirements of this section. The schedule shall be based on an analysis of the project conditions and shall be in written form. This schedule shall specifically indicate the sequence of clearing and grubbing, earthwork operations, including trenching and backfilling, construction of permanent erosion control features and the proposed uses of temporary erosion control features. Schedule shall also include proposed methods to prevent pollution of streams, lakes and rivers and other water resources.
  - 2. CONTRACTOR shall outline his proposed methods of controlling erosion and preventing pollution on public and construction access roads, staging areas and waste disposal areas.
  - 3. No work shall be started until the aforementioned plans and schedules have been accepted by ENGINEER. CONTRACTOR will be responsible for accomplishment of work in accordance with accepted plans and schedules. ENGINEER may approve changes made necessary by unforeseen circumstances which are beyond the control of CONTRACTOR.
- D. ENGINEER has the authority to limit the surface area of erodible earth materials exposed by clearing and grubbing, the surface area of erodible earth exposed by excavation and backfill operations and to direct CONTRACTOR to provide immediate permanent or temporary erosion and pollution control measures to prevent contamination of adjacent streams or other water courses.
- E. Clearing and grubbing operations shall be so scheduled and performed that grading operations and permanent erosion control features can immediately follow thereafter, if the project conditions permit, otherwise temporary erosion control measures will be required between successive construction stages.
- F. CONTRACTOR shall limit area of excavation, trenching and pipe laying operations in progress commensurate with CONTRACTOR's capability and progress in keeping finish grading, mulching, seeding and other permanent and/or temporary measures current with accepted schedule.
- G. Prevent dust at all times from leaving area of work by utilizing water or other dust inhibitors.



### 3.02. TEMPORARY GRASSING AND MULCHING

- A. Where staged construction or other conditions not controlled by CONTRACTOR prohibit the completion of work in a continuous manner, ENGINEER may order CONTRACTOR to apply temporary seeding or temporary mulch to an erodible area.
- B. Temporary grass shall consist of sowing a quick growing species of grass suitable to the area and season. Seeding rates shall be as shown on the Drawings. Ground preparation will be limited to blading the area to the amount deemed practical by the ENGINEER for a seed bed and the elimination of water pockets. Fertilizer shall be applied at a rate of 14 pounds per 1,000 square feet.
- C. Areas to be mulched need not be to finished grade. The mulched areas may be placed on slopes as steep as 2:1 using a tractor to imbed the mulch into the slope.
- D. Commercial matting and netting. Follow manufacturer's specifications included with the material.

### 3.03 SILT FENCES

- A. Temporary silt fences shall be located at all points where surface water can leave the construction area.
- B. Silt fences shall be constructed to remove sediments from flowing water through filtration and sedimentation. Silt fences shall be constructed in accordance with the details shown on Drawings.
- C. Silt fences shall be arranged to create ponding behind them. Provision shall be made for removing accumulated sediments and maintaining ponding capacity. As a minimum, remove sediment when deposits reach approximately one-third the height of barrier.
- D. Silt fences shall be removed and the area restored when permanent erosion control is effective.

### 3.04 EXCELSIOR MATTING

- A. Install matting where indicated on the Drawings.
- B. Shape area to be protected to required shape and grade and thoroughly compact after seedbed preparation. Remove rocks or clods over 1½ in. in diameter and sticks and other material that will prevent contact of excelsior matting with the soil surface. Complete seeding and fertilizing activities in accordance with Section 02931, Seeding, prior to installing the excelsior matting.

- C. Unroll excelsior matting in the direction of the flow of water with edges and ends butted snugly against each other. When unrolled, the netting shall be on top and the fibers in contact with the soil. The mats shall be anchored firmly to the soil with staples driven vertically into the ground and flush with the surface of the mats. On slopes flatter than 4H:1V, staples shall be spaced no more than 5 ft. apart on all edges and 1 ft. apart at all joints and ends. On all slopes 4H:1V or steeper or in depressions defined by the grading plans, staples shall be spaced 2½ to 3 ft. apart. At all joints and ends, staples shall be spaced no more than 6 in. apart. The spacing of staples may be modified to fit conditions as directed by the ENGINEER.

### 3.05 GRADING OPERATIONS

- A. Grading operations shall be scheduled so that ground surface will be disturbed for the shortest possible time before permanent construction is installed. Large areas shall be maintained as flat as possible to minimize soil transport through surface flow.
- B. Wherever steeper slopes or abrupt changes in grade are required, a diversion or berm shall be constructed at the top of slope to cause surface water to flow along the diversion to a control point to be transported downslope in a slope drain. In no case shall surface water be allowed to flow uncontrolled down slopes.

### 3.06 CONSTRUCTION IN STREAM BEDS

Unless otherwise approved in writing by ENGINEER, construction operations in rivers, streams and impoundments shall be restricted to those areas which must be entered for the construction of temporary or permanent structures. As soon as conditions permit, rivers, streams and impoundments shall be promptly cleared of all false-work, sheeting or piling which are to be removed, debris and other obstructions. Frequent fording of live streams with construction equipment will not be permitted; therefore, temporary bridges or other structures shall be used whenever an appreciable number of stream crossings are necessary. Unless otherwise approved in writing by ENGINEER, mechanized equipment shall not be operated in live streams except as may be required to construct channel changes and temporary or permanent structures, and to remove temporary structures.

### 3.07 RUN-OFF EROSION AND SEDIMENTATION CONTROLS

- A. During construction, route run-off through sedimentation barriers and check dams as practical.
- B. CONTRACTOR shall maintain sedimentation devices in functional condition. Sedimentation barriers and check dams shall be cleaned out when these devices are at least 60 percent of their capacity. Defective materials in barriers and check dams shall be replaced.
- C. CONTRACTOR shall establish sedimentation barriers at the toe of slopes under construction. These barriers may be relocated and reused after permanent slope stabilization becomes established. As they are relocated, any defective materials shall be replaced. In addition, all debris and silt at previous location will be removed.
- D. All construction vehicles leaving construction site shall have mud cleaned from their tires at these points to protect public streets from the transportation of sediment from site.

3.08 CLEANUP AND REMOVAL

- A. At the time that permanent erosion control is effective, temporary devices and their accumulated sediments shall be removed.
- B. Silts and deposits removed from control barriers shall be placed in eroded areas and shall be replanted.

END OF SECTION 02 27 00

SECTION 02 52 30

RESTORING SIDEWALKS, DRIVEWAYS, CURBS AND GUTTERS,  
AND STORM DRAINAGE STRUCTURES

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. WORK included in this Section consists of repair or replacement of sidewalks, driveways, curbs and gutters, and storm drainage structures.

1.02 RELATED WORK

- A. Section 02 22 50 - Earthwork for Utilities

1.03 REFERENCES

- A. Georgia Department of Transportation (GDOT) Standard Specifications, Construction of Transportation System, most current edition.
- B. American Society for Testing and Materials (ASTM) Annual Book of Standards: ASTM C 150, Standard Specification for Portland Cement.

PART 2 PRODUCTS

2.01 CRUSHED STONE BASE

- A. Stone base shall be a Graded Aggregate Base conforming to Section 815 of GDOT Standard Specifications.

2.02 CONCRETE

- A. Shall be ready-mixed concrete conforming to ASTM C 150, Type II Concrete.

2.03 HOT MIX ASPHALTIC CONCRETE

- A. Mix Type "E" conforming to Section 400 of GDOT Standard Specifications.

2.04 STORM DRAIN PIPE

- A. In accordance with Section 550 of GDOT Standard Specifications.

2.05 TACK COAT

- A. In accordance with Section 413 of GDOT Standard Specifications.

## PART 3 EXECUTION

### 3.01 GENERAL

- A. Restore all sidewalks, driveways, curbs and gutters, and storm drains to or better than the original, but not less thickness or quality than specified herein or shown on the Drawings.
- B. Carefully backfill any excavated area on which sidewalks, driveways or curbs and gutters are to be placed as specified in Section 02225 of these Specifications as applicable.
- C. If, prior to the expiration of the warranty period, any sidewalk storm drain, driveway or curb and gutter which has been damaged, due to undermining, or for any other cause which may be attributed to the work of the CONTRACTOR, the CONTRACTOR shall remove such damaged work and all loose earth. He shall then backfill with crushed stone base, properly compacted and replace damaged material/structure.
- D. WORK which the CONTRACTOR may do in connection with the replacement and repair of damaged work during the period of maintenance, shall be done at his expense, in accordance with the rules and requirements of the authority within whose jurisdiction such pavement is located, and in accordance with the additional requirements of the specifications, and the CONTRACTOR shall furnish evidence to the ENGINEER that the work has been completed to the satisfaction of such authority.
- E. Before replacing any sidewalk, driveway or curb and gutter, remove the existing sidewalk, driveway and/or curb and gutter back from the edge of excavation at least 12 inches or to the nearest joint if the nearest joint is within two (2) feet.
- F. All cuts shall be made by channeling machine, pneumatic tools, or such other methods as will furnish a straight clean cut in the concrete without undue shattering.
- G. The CONTRACTOR shall provide crushed stone base over trenches after completion of backfill.
- H. Should settlement, cracks or other indications of failure appear in concrete, pavement, driveways, curbs, pipes, or other structures the defective material shall be removed to the extent necessary to secure firm, undisturbed bearing and shall be relaid in a satisfactory manner.

### 3.02 CURB AND GUTTER

- A. Portland Cement Concrete curbs and gutters shall conform to Section 441 of Georgia D.O.T. Standard Specifications. Match existing curb. Construct 1/2" wide expansion joints with premolded joints filler across curb at all tangent points and at fifty feet intervals and one inch wide expansion joint filler and 3/4" joint sealing between curbs and concrete paving. Finish curb surface with dense uniform texture equal to burlap drag, and cross-score with 1/4" deep cross joints at ten foot intervals.

- B. Concrete curbs and gutters shall be finished in accordance with GDOT Standard Specifications. Face forms shall be removed as soon as possible and the exposed surfaces finished with a wood float. Straightedging, done along the edge of the gutter and top of curb and median shall conform to those requirements for the adjacent pavement, but with no irregularities to exceed 1/4 inch in 10 feet.
- C. Machine methods of placing may be used, providing the end result is satisfactory.

### 3.03 CONCRETE SIDEWALK

- A. CONTRACTOR shall relay/restore all sidewalks disturbed by the CONTRACTOR during construction.
- B. Sidewalks shall conform to requirements of Section 441 of Georgia D.O.T. Standard Specifications. Minimum sidewalk thickness shall be 4 inches. Provide transverse contraction joints at 6' interval by cutting a groove in the fresh concrete 1" deep with a jointer having an approved radius and a cutting blade not over 1/8" thick.
- C. Construct 1/2" wide expansion joints with premolded joint filler across walks at a maximum of fifty feet intervals. Finish to a broom and burlap drag gritty surface. Tool all joints and all edges to provide smooth border between sections. Match existing sidewalks.
- D. Concrete sidewalks shall be given a finish made by stiff-bristle brooming. The surface shall be tested with a 10 foot straightedge laid parallel to the centerline. Any irregularities in excess of 1/4 inch in 10 feet shall be eliminated while the concrete is still plastic. Concrete sidewalk constructed as curb cut (wheelchair) ramps shall have a rough or textured finish.

### 3.04 RESTORING STORM DRAINAGE PIPE

- A. The CONTRACTOR shall restore and replace storm drainage pipe and appurtenances when they are disturbed during execution of the work under this Contract at no additional cost to the OWNER.
- B. The storm drainage structures shall be replaced to the same horizontal and vertical location prior to their removal or disturbance.
- C. Materials used in the replacement of storm drainage structures shall be of the same size, type, and length of that removed.
- D. Storm drainage pipe damaged due to the negligence on the part of the CONTRACTOR shall be replaced at the CONTRACTOR'S expense.

### 3.05 CONCRETE AND ASPHALT DRIVEWAYS

- A. CONTRACTOR shall restore all driveways disturbed by the CONTRACTOR during construction.
- B. Driveway sections shall be removed by saw cutting pavement.

- C. Construct driveways in accordance with the Drawings, and GDOT Standard Specification Section 400 for asphalt, and GDOT Section 430 for concrete. Finished elevations shall match existing elevations.

### 3.06 GRAVEL DRIVEWAYS

- A. CONTRACTOR shall restore all driveways disturbed by the CONTRACTOR during construction.
- B. Construct driveways in accordance with the Drawings, and GDOT Standard Specification Section 310. Finished elevations shall match existing elevations.

### 3.07 CLEAN UP

- A. Before work shall be considered complete, remove material not used and rubbish of every character from job site.
- B. Any subsequent settlement of pavement, exposed surfaces, or backfill shall be repaired and the surface shall be brought to grade.
- C. Any and all items disturbed by the construction shall in every case be restored to their original or better condition as closely as possible prior to completion of the construction.

END OF SECTION 02 52 30

## SECTION 02 60 10

### MANHOLES

#### PART 1 GENERAL

##### 1.01 SCOPE OF WORK

- A. Work required under this section consists of all materials, accessories, equipment, tools, and labor required to install precast concrete standard manholes, where shown on Drawings, for the proper completion of the WORK included under this Contract.

##### 1.02 RELATED WORK

- A. Section 02225 - Earthwork for Utilities.

##### 1.03 REFERENCES

- A. American Society for Testing and Materials (ASTM), Annual Book of Standards.
- B. ASTM A 48, Standard Specification for Gray Iron Castings.
- C. ASTM C 32, Standard Specification for Sewer and Manhole Brick.
- D. ASTM C 150, Standard Specification for Portland Cement.
- E. ASTM C 478, Standard Specification for Precast Reinforced Concrete Manhole Section.
- F. ASTM C 990, Standard Specification for Joints for Concrete Pipe, manholes and Precast Box Sections Using Preformed Flexible Joint Sealants.

##### 1.04 QUALITY ASSURANCE

- A. After delivery to site, materials which have been damaged in transit or are otherwise unsuitable for use in the Work, shall be rejected and removed from the site.

#### PART 2 PRODUCTS

##### 2.01 MATERIALS

- A. Precast Concrete Manholes
  1. Precast concrete manholes shall consist of precast reinforced concrete sections, a conical or flat slab top section, and a base section conforming with the typical manhole details as shown on Drawings.
  2. Precast manhole concrete sections shall be manufactured, tested, and marked in accordance with latest provisions of ASTM C 478.
  3. Ends of each reinforced concrete manhole riser section and bottom end of manhole top section shall be so formed that when manhole risers and top are assembled, they will make a continuous and uniform manhole.



4. Joints of manhole sections shall be of tongue and groove type. Sections shall be joined using a preformed butyl joint sealant conforming to applicable provisions of ASTM C 990.
5. Each section of the precast manhole shall have not more than two holes for the purpose of handling and laying. These holes shall be tapered and shall be plugged with rubber stoppers or grout after installation.
6. Holes in precast bases to receive sewer pipes shall be provided with flexible manhole sleeves of high quality synthetic rubber.
7. Holes in manhole bases to receive sewer pipes shall be precast at the factory at required locations and heights. Knocking out of holes in the field will not be permitted.
8. Manhole inverts shall be constructed of ASTM C 150 Type I concrete in accordance with details on Drawings and shall have the same cross section as the invert of the sewer with which they connect. Invert shall be carefully formed to required size and grade by gradual and even changes in sections. Changes in direction of flow through sewer shall be made to a curve with as large a radius as size of manhole will permit.
9. **PRECAST INVERTS WILL NOT BE ALLOWED.**

B. Frames, Covers and Steps

1. Manhole frames, stepsets and covers shall be cast iron conforming to minimum requirements of latest ASTM A 48, for Class 35B Gray Iron Castings. Castings shall be made accurately to required dimensions, fully interchangeable, sound, smooth, clean and free from blisters or other defects. Defective castings which have been plugged or otherwise treated shall not be used. Each casting shall have its actual weight in pounds stenciled or painted on it in white paint.
2. Manhole frames and covers shall be of size and location as shown on Drawings. Where manholes are to be located under roads or driveways, whether paved or unpaved, frames and covers shall be equal to Neenah Foundry Co., No. R-1642, except for lids on manholes for air/vacuum valve shall be equal to Neenah Foundry Co., No. R-1659, vented lid. Where called for on drawings, frames and covers shall be equal to Neenah Foundry Co., No. R-1916-F (bolt down).
3. Covers:
  - a. Watertight manhole covers, where indicated on Drawings, shall be equal to Neenah Foundry Co., No. R-1916-F (bolt down). All bolts or screws must be stainless steel.
  - b. Contact surfaces of all manhole covers and corresponding supporting rings in rims shall be machined to provide full perimeter contact.
  - c. Sanitary sewer manhole covers shall have cast on the top in letters 2 inches high, Process Waste. Cover shall be Neenah Type "A".
4. Steps: Manhole steps conforming to applicable provision of ASTM C 478 such as "Wedg-Lok" as manufactured by Delta Pipe Products, or plastic steps as manufactured by M. A. Industries, Inc., or approved equal, shall be used.

C. Brick used in manhole construction shall be either solid or cored, medium hard or better, Grade SM brick conforming to requirements of ASTM C 32 for sewer and manhole brick.

D. Mortar for brick manhole construction shall be sand-cement mortar composed of one part portland cement to two parts clean sand conforming to ASTM C 144. Twenty pounds of hydrated lime per sack of cement may be added. No retempered mortar shall be used.

- E. All drop manholes with outside drop connection shall be provided at all locations as may be directed by the ENGINEER or indicated on the Drawings. Section shall include all exterior drop pipe additions to standard manholes complete with drop pipe encasement, excavation, and foundation cushion.

PART 3 EXECUTION

3.01 MANHOLES

- A. Manhole bases shall be placed on 6-inch bed of No. 57 foundation stone cushion to required elevation.
- B. Joints of precast sections shall be sealed with approved sealant. After joint has been made, joint opening shall be sealed with grout. Grout shall be applied from both sides of joint and shall be struck smooth and flush on the inside.
- C. After installation of pipe to proper grade and alignment, make required seal of pipe and manhole base and formed inverts in accordance with Specifications and as shown on Drawings.
- D. Install manhole frames and covers in accordance with Specifications and as shown on Drawings.
- E. Backfilling of manhole in accordance with Section 02 22 50.

END OF SECTION 02 60 10

SECTION 02 73 60

GRAVITY SANITARY SEWER

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. CONTRACTOR shall furnish all materials, perform all necessary excavation, and properly install and test, at the location indicated on the Drawings, or as directed, all gravity sewer pipe and related appurtenances for the proper completion of the work included under this Contract.
- B. Provide work in accordance with pertinent laws, codes and regulations.

1.02 RELATED WORK

- A. Section 02 22 50 - Earthwork for Utilities

1.03 REFERENCES

- A. American Society for Testing and Materials (ASTM), Annual Book Standards.
  - 1. ASTM D 3034, Specification for Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings.
  - 2. ASTM D 3212, Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals.
  - 3. ASTM F 477, Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.
- B. American Water Works Association (AWWA) Standards.
  - 1. AWWA C104, Standard for Cement-Mortar Lining for Ductile-Iron Pipe and Fittings for Water.
  - 2. AWWA C110, Standard for Ductile-Iron and Gray-Iron Fittings, 3 in. through 48 in., for Water and other Liquids.
  - 3. AWWA C111, Standard for Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
  - 4. AWWA C150, Standard for Thickness Design of Ductile Iron Pipe.
  - 5. AWWA C151, Standard for Ductile-Iron Pipe, Centrifugally Cast, for Water or other Liquids.
  - 6. AWWA C153, Standard for Ductile-Iron Compact Fittings, 3 in. through 24 in. and 54 in. through 64 in., for Water Service.
- C. UNI-Bell PVC Pipe Association Standard UNI-B-6-98, Recommended Practice for Low-Pressure Air Testing of Installed Sewer Pipes.

1.04 QUALITY ASSURANCE

- A. CONTRACTOR shall submit to ENGINEER written evidence that pipe furnished under this Specification is in conformance with requirements specified herein. Certified copies of independent laboratory test results or mill test results from pipe supplier may be considered evidence of compliance provided such tests are performed in accordance with appropriate ASTM testing standards by experienced, competent personnel. In case of doubt as to accuracy or adequacy of mill tests, ENGINEER may require that CONTRACTOR furnish test reports from an independent testing laboratory on samples of pipe materials.

- B. Each pipe shall be clearly marked as required by governing ASTM standard specifications to show its class, date of manufacture, and name or trademark of manufacturer.
- C. All pipes and fittings will be subject to inspection and approval by the ENGINEER after delivery. Any pipe or specials that have been broken, cracked, or otherwise damaged before or after delivery, or which have failed to meet required tests, shall be removed from site of work and shall not be used therein.

#### 1.05 DELIVERY, STORAGE AND HANDLING

- A. CONTRACTOR shall be responsible for safe unloading, storage and care of material furnished by or to him until it has been incorporated into the WORK.
- B. Unload pipe, fittings, or valves by lifting with hoists or skidding to avoid damage.
  - 1. Pipe shall not be unloaded by rolling or dropping off trucks.
  - 2. Pipe handled on skidways shall not be skidded or rolled against pipe already on ground.
- C. Unload material at site of work, near place where it will be placed in trench.
  - 1. Materials shall be placed so as to least interfere with traffic.
  - 2. Provide signs, lights, and barricades as necessary to protect public.
- D. Handle material carefully to prevent breakage and to avoid damage to coatings and linings.
  - 1. Keep interior of pipe, fittings and valves, free of dirt or foreign matter at all times.
  - 2. Do not place materials in drainage ways or ditches.
- E. Materials that cannot be placed along site of work shall be stored at CONTRACTOR's expense. OWNER's storage yards may be utilized if available and approved by OWNER.

#### 1.06 SITE CONDITIONS

- A. Water used for constructing or testing shall be paid for by the CONTRACTOR.
- B. The bypassing of wastewater onto the ground or into a stream or drainageway is prohibited.

### PART 2 PRODUCTS

#### 2.01 GENERAL

- A. Pipe and special fittings shall be furnished in sizes, types and classes at locations shown on Drawings, and/or specified herein.
- B. Pipe and fittings shall be new materials which have not been previously used.

#### 2.02 BEDDING AND BACKFILL

Bedding and backfill material shall be as specified in Section 02 22 50.

## 2.03 DUCTILE IRON PIPE (DIP)

- A. Ductile iron pipe supplied shall be push-on, mechanical, or flanged joint, as indicated on the drawings.
- B. Ductile iron pipe shall:
  - 1. Conform to AWWA C150 and AWWA C151.
  - 2. Be thickness Pressure Class 350 in accordance with AWWA C150.
  - 3. Be cement lined in accordance with AWWA C104.
  - 4. Have rubber jointed gaskets conforming to AWWA C111.
- C. The weight, casting period, and class or nominal thickness shall be shown on each pipe. The manufacturer's mark, the year in which the pipe was produced, and the letters "DI" or "DUCTILE" shall be clear and legible. All cast marks shall be on, or near, the bell.
- D. Ductile Iron Fittings
  - 1. Compact fittings shall be in accordance with AWWA C153.
  - 2. Working pressure be a minimum of 350 psi.
  - 3. Mechanical joint fittings shall be in accordance with AWWA C110.

## 2.04 POLYVINYL CHLORIDE PIPE (PVC)

- A. Pipe and fittings shall meet all requirements of ASTM D3034, SDR35, unless otherwise specified.
- B. Provisions must be made for contraction and expansion at each joint with an elastomeric gasketed joint.
- C. Joints shall utilize rubber gaskets conforming to ASTM F 477 and ASTM D 3212. Lubricant shall be of composition so as not to exhibit deteriorating effect on either gasket or pipe material.
- D. Standard lengths shall be a maximum of 20 feet.

## PART 3 EXECUTION

### 3.01 PIPE LAYING

- A. CONTRACTOR shall stake check pegs at all manholes throughout the WORK. Check pegs midway between manholes and any other check points deemed necessary to assure accuracy of the equipment shall be provided by CONTRACTOR.
- B. After manholes have been staked and all utilities have been marked, contractor shall verify that no sewer is being installed within 10 lateral feet of an existing waterline.
- C. Excavation and pipe bedding shall be performed in accordance with Section 02 22 50.
- D. CONTRACTOR may use batter boards and string line or a laser beam to maintain line and grade.

- E. Each piece of pipe and each fitting shall be carefully inspected before it is placed and no defective pipe shall be laid in trench. Pipe laying shall proceed upgrade, starting at lower end of grade and with the bells uphill. Trench bottoms found to be unsuitable for foundations after pipe laying operations have started shall be corrected and brought to exact line and grade with approved compacted materials.
- F. Bell holes shall be sufficient size to allow ample room for making pipe joints properly. Bell holes shall not be cut out more than ten joints ahead of pipe laying. The bottom of trench between bell holes shall be carefully graded so that the pipe barrel will rest on the specified bedding for its entire length as shown on DRAWINGS. Each joint shall be laid so that it will form a close concentric joint with adjoining pipe in order to avoid sudden offsets or inequalities in flow line.
- G. Water shall not be allowed to run or stand in trench while pipe laying is in progress or before the joints are completely set or before trench has been backfilled. CONTRACTOR at no time shall open up more trench than his available pump facilities are able to dewater. Where sewer pipelines are located in or across stream beds or drainage ditches, CONTRACTOR shall divert stream flow and dewater each section as WORK progresses.
- H. No joints shall be made where pipe or joint materials have been soiled by earth in handling until such soiled surfaces are thoroughly cleaned by wire brushing or wiping until all traces of earth are removed.
- I. As work progresses, interior of all pipe shall be kept thoroughly clean. After each line of pipe has been laid, it shall be carefully inspected and all earth, trash, rags and other foreign matter removed from interior.
- J. Backfilling of trenches shall start immediately after the pipe has been installed. Backfill shall be deposited and compacted as provided under Section 02 22 50.

### 3.02 JOINT CONSTRUCTION

- A. All joints for the various types of pipes shall be installed in accordance with pertinent AWWA, ASTM, and manufacturer's specifications. Any defective work will be removed and replaced if it cannot be corrected in accordance with the above mentioned specifications.

### 3.03 INSPECTION

- A. After completion of any section of pipe, the grades, joints and alignment shall be true to line and grade.
  - 1. Joint surfaces shall be smooth.
  - 2. There shall be no visible leakage and sewer shall be completely free from any cracks, protruding joint materials, deposits of sand, mortar or other materials on inside.
- B. Mandrel Test
  - 1. Mandrel shall be pulled through all gravity sewer pipe while ENGINEER's representative is present.

2. Mandrel test shall be performed on each section of pipe to monitor deflection and to ensure that the requirements of the specification are being met. The following steps shall be followed when performing the mandrel test.
  - a) Verify line is clean and free of debris that might cause the device to jam. It is recommended that the line be cleaned with a hydro-cleaner washing in the direction of flow.
  - b) Pull a line through the pipe with which to pull the mandrel. This can be done in several ways.
    - 1) If a hydro cleaner is being used, attach the pull line to the nozzle end before the actual cleaning cycle starts. As the hose is pulled through the line, it will carry the pull line with it. When the hose nozzle reaches the manhole, disconnect the pull line and tie it off.
    - 2) A parachute device can be blown through the line with a lightweight string attached. Detach the string, and attach the pull line. Manually drag the pull line through the pipe. Tie off each manhole.
  - c) Pull mandrel by hand through pipe. The pulling motion should be smooth and easy to avoid jamming the mandrel if an obstruction is encountered in the line. The mandrel shall have a line on each end to facilitate removal should the mandrel become obstructed in the direction of pull. Do not use mechanical equipment to force the mandrel through the pipe.
3. Mandrel shall be sized to allow 7 ½ % maximum deflection in pipe dimension in accordance with ASTM D 3034. Mandrel shall have at least six (6) points. Mandrel test shall be made at least 48 hours after backfilling over pipe.

C. Low Pressure Air Leakage Test

1. During the progress of the WORK and prior to making any house connection, CONTRACTOR shall test, in presence of ENGINEER, the entire sewer and appurtenances installed for leakage by low pressure air in accordance with UNI-Bell Specification UNI-B-6-98.
2. CONTRACTOR will furnish all facilities and personnel for conducting test.
3. CONTRACTOR may desire to make an air test prior to backfilling for his own purposes. However, acceptance of the air test shall be made after backfilling has been completed and compacted.
4. All wyes, tees, and service laterals shall be plugged with either mechanical or pneumatic joint caps, or acceptable alternate, securely fastened to withstand the internal test pressures. Such plugs or caps shall be readily removable, and their removal shall provide a socket suitable for making a flexible jointed lateral connection or extension. Plugs shall be internally restrained or externally braced to the manhole wall as an added safety precaution.
5. Prior to testing for acceptance, pipe should be cleaned by passing through the pipe a full gauge squeegee. It shall be the responsibility of the CONTRACTOR to have pipe clean.
6. Immediately following pipe cleaning, pipe installation shall be tested with low pressure air in accordance with UNI-B-6-98.
7. If pipe installation fails to meet these requirements, CONTRACTOR shall determine at his own expense, source or sources of leakage, and shall repair (if extent and type of repairs proposed by CONTRACTOR is approved by ENGINEER), or replace all defective materials or workmanship.
8. Maximum length of section of sewer line to be tested by means of low pressure air tests at one time shall be limited to each manhole reach.

9. Final acceptance of each section or run of sewer tested will not be issued until leakage has been reduced to rates not exceeding maximum specified herein.
10. **Safety Precautions:** Low pressure air test may be dangerous to personnel if, through lack of understanding or carelessness, a line is overpressurized or plugs are installed improperly. It is extremely important that various plugs be installed so as to prevent sudden expulsion of a poorly installed or partially inflated plug (i.e., a force of 250 lbs (112N) is exerted on an 8-inch (200 mm) plug by an internal pressure of 5 psi (34 kPa)). Observe the following precautions:
  - a) No one shall be allowed in manholes during testing because of hazards.
  - b) Install all plugs securely.
  - c) When lines are to be tested, it may be necessary that plugs be braced as an added safety factor.

D. Chemical Grouting

1. Should visible leaks of joints be discovered as a result of testing or inspection, chemical grouting will be considered an acceptable remedy only if the CONTRACTOR gives an extended warranty period for leakage of five (5) years and posts a maintenance bond to cover any leakage repairs over that time period.
  - a) Method employed to seal joints in sewers shall require positioning of double-header packer at joint with heads of packer located on both sides of joint to be sealed.
  - b) When positioned, packer heads will be expanded to provide an effective seal against loss of chemical grout into pipe interior.
  - c) Grout shall then be introduced into packer under sufficient pressure to force entry through joint into earth surrounding pipe.
2. Chemical sealing materials shall be two or three part sealant depending upon manufacturer's formula.
  - a) Basic components shall be base and catalyst which when mixed together under controlled conditions will form a translucent and non-absorptive gel.
  - b) Gel shall be insoluble in water, kerosene, or gasoline, and shall be resistant to attack by fungi, dilute acids, alkalis, salts and gases found in ground.
  - c) Final reaction shall produce a continuous cross-linking and irreversible gel.
  - d) Chemical sealant shall contain approximately 10% of base sealant constituent.
3. Joints sealed with chemical grout shall be air tested.
  - a) Method employed to air test joints shall require positioning of double-header packer at joint with heads of packer located on both sides of joint to be tested.
  - b) When positioned, packer heads will be expanded to provide an effective seal against loss of air into pipe interior.
  - c) Air shall then be introduced into a packer until a pressure of 4 pounds developed.
  - d) If this pressure holds for 30 seconds, after air supply is shut off, joint shall be considered acceptable.
  - e) Should loss of pressure occur during the 30 seconds, joint shall be scheduled for chemical grouting.



### 3.04 CLEAN-UP

- A. After completing each section of sewer line, CONTRACTOR shall remove all debris and construction materials and equipment from site of Work, grade and smooth over surfaces on both sides of line and leave entire right-of-way in clean, neat and serviceable condition.

### 3.05 FINAL ACCEPTANCE

- A. Final inspection will include a visual observation of each section of sewer by looking from manhole to manhole with aid of reflected sunlight or an electric torch in the presence of the ENGINEER.
- B. Such light used for inspection shall be plainly visible from manhole to manhole. Reflected light from manhole to manhole will not be considered as plainly visible light and shall be reason for rejection of section of sewer as not being laid true to line and grade.
- C. Pipe shall be true to line and grade; shall show no leaks; shall be free from cracks and dirt or other materials which will reduce full cross sectional area.
- D. Joints shall be tight.
- E. Finished acceptance of each section or run of sewer tested will not be issued until leakage has been reduced to rates not exceeding maximum specified herein as permissible.
- F. After manholes have been installed and backfilling completed, visually inspect manholes to verify no visible leakage of water into manhole. Immediately repair all leaks with a non-shrink grout such as IPANEX-R by IPA Systems, Inc.

### 3.06 SEPTIC TANK DEMOLITION

- A. After final acceptance of sewer lines and changeover of sewer service to the new gravity sewer, the existing grease trap tank, septic tank and drain field are to be abandoned.
- B. The CONTRACTOR shall remove all water, sludge, grease, etc. from the tank bottoms and dispose of this waste at an approved location. Septic tank contents shall not be disposed of into the new or existing gravity sewer system. After the tanks are empty, a hole is to be broken through the bottom of the tank to allow drainage. At the CONTRACTOR's option, the tanks may be entirely removed. Otherwise, break up the tops and walls to minimum 3' below grade. Use the broken concrete and #57 stone to fill the tank to 3' below grade. Fill to finished grade with clean fill material, compacted to minimum 85% Standard Proctor in 8" lifts, and four inches of topsoil at grade. Restore area with permanent grassing or sodding as directed by the OWNER.
- C. The drain field piping is to remain and be abandoned in place.

END OF SECTION 02 73 60

## SECTION 02 75 00

### PROTECTION, RELOCATION AND RESTORATION OF EXISTING UTILITIES

#### PART 1 – GENERAL

##### 1.01 SCOPE OF WORK

- A. CONTRACTOR shall relocate or restore, as indicated on CONTRACT DRAWINGS or as directed by ENGINEER, all existing utilities. **The Utilities Protection Center (UPC) must be contacted at least three regular business days before work begins. The UPC can be reached at the state-wide toll-free number: 811.**
- B. CONTRACTOR shall be required, at his own expense, to do everything necessary to protect, support, and sustain all sewers, culverts, water, or gas pipes, electric lights, power, telephone, or telegraph poles or conduits, and other fixtures laid across or along site of WORK, even to the extent of using hand labor in making trench openings under or over these. OWNER, as well as company or corporation owning said pipes, poles, or conduits must be notified in advance of same by CONTRACTOR, before any such fixtures are removed or disturbed. In case any of said sewer, gas, or water pipes, service pipes, electric lights, power, telephone or telegraph poles or conduits, or other fixtures are damaged they shall be repaired by authorities having control of the same, and expense of said repairs shall be paid by CONTRACTOR or deducted from monies which are due or to become due said CONTRACTOR under this Contract.
- C. No underground or overhead facilities encountered shall be disturbed without proper authority from OWNER, and then only in such manner as OWNER may prescribe and approve.
- D. Should it become necessary to change position, or permanently or temporarily remove any electric conduits, telephone conduits, water pipes, gas pipes, sewerage pipes, or other pipes, conduits, or wires in order to clear structure being built or to permit CONTRACTOR to use a particular method of construction CONTRACTOR shall cease work if necessary, until satisfactory arrangements shall have been made by owners of said pipes, wires, or conduit, to properly care for or relocate same as necessary to permit WORK to proceed as required for proper completion of Contract.
- E. No claims for damages will be allowed CONTRACTOR on account of any delay occasioned thereby.

##### 1.02 GENERAL CONDITIONS

- A. In addition to showing structures to be built under this Contract, Drawings show certain information obtained by ENGINEER regarding pipes, pole lines, conduits, and other structures which exist along lines of WORK, both at and below surface of ground.

- B. ENGINEER and OWNER expressly disclaim any responsibility for accuracy or completeness of information given on Drawings with regard to existing structures, and CONTRACTOR will not be entitled to any extra compensation on account of inaccuracy or incompleteness of such information, said structures being indicated only for convenience of CONTRACTOR who must verify information to his own satisfaction.
- C. Information given upon Drawings will not relieve CONTRACTOR of his obligation to support and protect all pipes, conduits, and other structures which may be encountered during construction of WORK, and to make good all damages done to such pipes, conduits, and other structures, as provided in these Contract Documents.
- D. CONTRACTOR shall locate all underground obstructions prior to excavation so as to prevent any damage to those services or other utilities.
- E. Any such damages must be repaired without delay and cost of such repairs must be borne by CONTRACTOR. All costs for temporary services are the full financial responsibility of the CONTRACTOR.

## PART 2 – PRODUCTS

Not Used.

## PART 3 – EXECUTION

### 3.01 RELOCATION OF WATER LINES

- A. Only when directed and approved by ENGINEER shall any water mains, service lines, or water meters be relocated during progress of WORK.
- B. Material used during relocation of any water mains or appurtenances shall be of same size and strength as existing material.
- C. When existing water lines and appurtenances are removed for relocation and are not to be replaced by new material, they shall be suitably stored until they are relocated.
- D. When existing water lines and appurtenances are removed for relocation and are to be replaced by new material, remaining materials shall be disposed of by CONTRACTOR at his expense.

### 3.02 RELOCATION OF SANITARY SEWERS

- A. Only when directed and approved by ENGINEER shall any sanitary sewer lines or service laterals be relocated during progress of WORK.
- B. Material used during relocation of any sanitary lines shall be of same size and strength as existing material. As a minimum, materials shall be as specified herein.

- C. Removed material during relocation of sanitary sewers shall be disposed of by CONTRACTOR at his expense.

### 3.03 RELOCATION OF ELECTRIC POWER POLES AND CONDUITS

- A. Only when directed and approved by ENGINEER shall power pole relocation and electric service be relocated during progress of WORK. Relocation shall be performed by Local Electrical Department.
- B. Temporary electrical service shall be provided when permanent electric service will be interrupted for more than one day.
- C. Cost of relocation of all electric utilities shall be responsibility of CONTRACTOR.

### 3.04 RELOCATION OF GAS LINES

- A. Only when directed and approved by ENGINEER shall any gas mains and gas services be relocated during progress of WORK. Relocation shall be performed by local gas company.
- B. Temporary gas service shall be provided when permanent gas service will be interrupted for more than one day.
- C. Cost of relocation for gas mains shall be responsibility of CONTRACTOR.

### 3.05 RELOCATION OF TELEPHONE

- A. Only when directed and approved by ENGINEER shall any telephone/cable television cable and conduit be relocated during progress of WORK. Relocation shall be performed by local telephone company.
- B. Temporary telephone service by digital phone service shall be provided when telephone service will be interrupted for more than one day.
- C. Cost of relocation of telephone/cable television cables and conduits, and temporary phone service, shall be responsibility of CONTRACTOR.

END OF SECTION 02 75 00

## SECTION 03 30 00

### CONCRETE

#### PART 1 – GENERAL

##### 1.01 SCOPE OF WORK

- A. Concrete foundation walls, sanitary structures, pipe encasements, and slabs on grade.

##### 1.02 REFERENCES

- A. ACI 350 - Specifications for Concrete Sanitary Engineering Structures.
- B. ACI 318 - Specification for Building Code Requirements for Reinforcing Concrete
- C. ASTM C33 - Concrete Aggregates.
- D. ASTM C94 - Ready-Mixed Concrete.
- E. ASTM C150 - Portland Cement.
- F. ASTM C260 - Air-Entraining Admixtures for Concrete.
- G. ASTM C494 - Chemical Admixtures for Concrete.
- H. Georgia Department of Transportation Standard Specifications (Section 500).

##### 1.03 QUALITY ASSURANCE

- A. Perform work in accordance with ACI 350.
- B. Obtain materials from same source throughout the WORK.
- C. Tests: As listed in "Methods of Sampling and Testing", Section 18, ASTM C94. Qualifications of laboratory, responsibilities of all parties involved, and designation of the party to employ, and to pay for, specified services are covered in the Supplementary General Provisions.
  - 1. Concrete:
    - a. Mix and Control: The verifications and control of concrete mixes shall be the work of an independent testing laboratory. Cost of testing shall be paid by Contractor.
    - b. Laboratory Services shall be as follows:
      - 1) Test aggregates for specifications compliance.
      - 2) Test Portland Cement at each car of cement or on marked bin from which shipped.
  - 2. Verify design mixes: CONTRACTOR shall submit samples proposed for use in concrete to testing laboratory for making trial batches. Verification tests to be deemed satisfactory must produce minimum 28 day strengths 1200 psi higher than the specified design strength unless standard deviations have been established by the

concrete supplier in accordance with Section 4 of ACI 318. Furnish written statement of standard deviation, if used, in accordance with ACI 214, established by a registered testing laboratory. Tests for proposed mixes shall consist of making and breaking nine standard cylinders for each mix. Sets of three (3) eight (8) day ages. The results of these tests and curves showing the strength of the concrete at various ages shall be submitted to OWNER. If trial mixes fall below test limits, design mixes or materials shall be revised and resubmitted for retesting. A record of field tests for the same proportioning of the same materials will be accepted in lieu of proof testing.

#### 1.04 TESTS

- A. Testing and analysis of concrete will be performed in accordance to ACI 318.
- B. Submit proposed mix design of each class of concrete to ENGINEER for review prior to commencement of work.
- C. Three concrete test cylinders will be taken for every 75 or less cu yds of each class of concrete placed each day.
- D. One additional test cylinder will be taken during cold weather and cured on site under same conditions as concrete it represents.
- E. One slump test will be taken for each set of test cylinders taken.

### PART 2 - PRODUCTS

#### 2.01 CONCRETE MATERIALS

- A. Cement: ASTM C150, Type I, IA, II, IIA, III, or IIIA Portland Type.
- B. Fine and Coarse Aggregates: ASTM C33.
- C. Water: Clean and not detrimental to concrete.

#### 2.02 ADMIXTURES

- A. Air Entrainment: ASTM C260.
- B. Chemical Admixture: ASTM C494, of any type must be approved by OWNER prior to use, Type A - water reducing.

#### 2.03 CONCRETE MIX

- A. Mix concrete in accordance with ASTM C94.
- B. Provide concrete for all applications of the following characteristics:
  - 1. Class B - Normal Weight 4,000 psi @ 28 days
  - 2. Class C - Normal Weight 3,000 psi @ 28 days
  - 3. Class D - Normal Weight 2,500 psi @ 28 days

- C. Use accelerating admixtures in cold weather only when approved by OWNER. Use of admixtures will not relax cold weather placement requirements.
- D. Use set-retarding admixtures during hot weather only when approved by OWNER.
- E. Add air entraining agent to concrete mix for concrete work subject to freeze-thaw cycling.

## PART 3 – EXECUTION

### 3.01 INSPECTION

- A. Verify anchors, seats, plates, reinforcement, and other items to be cast into concrete are accurately placed, held securely, and will not cause hardship in placing concrete.

### 3.02 PREPARATION

- A. Prepare previously placed concrete by cleaning with steel brush and applying bonding agent. Apply bonding agent in accordance with manufacturer's instructions.

### 3.03 PLACING CONCRETE

- A. Notify ENGINEER minimum 24 hours prior to commencement of concreting operations.
- B. Place concrete in accordance with ACI 350.
- C. Hot Weather Placement: ACI 350.
- D. Cold Weather Placement: ACI 350.
- E. Ensure reinforcement, inserts, embedded parts, formed joints and opening are not disturbed during concrete placement.
- F. Maintain concrete cover around reinforcing as per ACI 350, or as otherwise noted on Drawings.
- G. Place concrete continuously between predetermined construction. Do not break or interrupt successive pours such that cold joints occur.
- H. Excessive honeycomb or embedded debris in concrete is not acceptable. Notify ENGINEER upon discovery.
- I. Placing during non-daylight hours:
  - 1. Concrete shall be placed during daylight hours unless otherwise approved by the Engineer. Placing of concrete in a portion of work shall not be started unless that portion of the work can be completed during daylight. Daylight is defined as the period one hour before sunrise to one hour after sunset.
  - 2. If it is desired by the CONTRACTOR to place concrete during non-daylight hours, the CONTRACTOR shall provide an adequate lighting system approved by the ENGINEER. Approval of the placing of concrete during non-daylight hours shall in no way lessen the responsibility of the CONTRACTOR as related to the WORK.

### 3.04 FINISHING

Concrete surfaces shall have rough edges tooled-off; irregularities shall be filled pointed-up and spot finished.

### 3.05 FIELD QUALITY CONTROL

- A. Concrete Control: The verification and control of all concrete shall be performed by an independent testing laboratory. Cost of testing shall be paid by CONTRACTOR.
- B. Laboratory Services shall be as follows:
1. Make, cure, store and break test cylinders conforming to requirements of ASTM C31 "Standard Method of Making and Curing Concrete Test Specimens in the Field"; ASTM C39 "Standard Method of Test for Compressive Strength of Cylindrical Specimens"; ASTM C143 "Standard Method of Test for Slump of Portland Cement Concrete"; ASTM C172 Test cylinders and slump tests shall be made at job site and under no circumstances shall they be taken at a central mixing plant.
  2. Reports on all tests conducted by laboratory shall be rendered promptly and distributed as follows:
    - a. ENGINEER - Three (3) copies.
    - b. CONTRACTOR - Two (2) copies.
  3. Reports of control cylinders for job placed concrete shall contain the following:
    - a. Time of batching.
    - b. Time of sampling.
    - c. Concrete and air temperature.
    - d. Slump.
    - e. Other information furnished by CONTRACTOR.
    - f. Full description of the location of the concrete from which the concrete for test specimen was taken.
- C. Contractors Function in Concrete Testing
1. Deliver samples of aggregate and cement in quantities established by laboratory for tests of aggregate and design mixes.
  2. Follow instructions of laboratory in proportioning mixes.
  3. Coordinate laboratory's services with building operation. CONTRACTOR shall supply barrows, shovels, mixing boards, shaded work space for molding cylinders, and similar equipment required by laboratory representative for molding test cylinders.
  4. Keep a daily log, recording quantities of each class of concrete used, the area of location of each quantity of concrete relating to its controlling cylinder and the slump of this concrete, and general weather conditions. The CONTRACTOR shall furnish this information to the laboratory for inclusion in the test reports. The CONTRACTOR shall obtain delivery tickets showing the class and strength of concrete, the size of coarse aggregate and the slump order. The CONTRACTOR shall identify these tickets relative to the area of placement of the concrete and shall retain them on file. He shall produce the tickets, should ENGINEER so request.



- D. Detailed Requirements
1. Of the test cylinders taken as per Section 1.07, one shall be broken at 7 days, one shall be broken at 28 days and one held in reserve.
  2. The primary function of compression tests in field concrete is to insure production of uniform concrete of desired strength and quality. Compressive strength is not necessarily the most critical factor in proportioning concrete mixes since other factors, such as durability, may impose lower water-cement ratios that are required to meet strength requirements. In such cases, strength will, of necessity, be in excess of structural demands. To obtain maximum information, a sufficient number of field compression tests should be made to be representative of the concrete produced and appropriate statistical methods should be used to interpret the test result. Statistical methods provide the best basis for assessing from such results the potential quality and strength of the concrete in a structure and expressing the results in a useful form. The ACI Standard Recommended Practice for Evaluation of Compression Test Results of Field Concrete, ACI 214-65 shall be used. The Statistical method of determining acceptable concrete will govern operations of costing.

### 3.06 PATCHING

- A. Notify ENGINEER immediately upon removal of forms.
- B. Patch imperfections.

### 3.07 DEFECTIVE CONCRETE

- A. Modify or replace concrete not conforming to required levels and lines, details, and elevations.
- B. Repair or replace concrete not properly placed or of the specified type.

### 3.08 PROTECTION

- A. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.

END OF SECTION 03 30 00

## SECTION 31 10 00

### SITE PREPARATION

#### PART 1 – GENERAL

##### 1.01 SCOPE OF WORK

- A. WORK to be performed under this section shall consist of clearing and grubbing the site within the limits of the Contract as shown on Drawings and disposal of all waste materials.
- B. WORK also included under this section shall include the removal and replacement of existing fences and the erection of temporary fences.
- C. Definitions
  - 1. Clearing: The removal and disposal of all exposed objectionable matter such as trees, brush, logs, buildings, fences, poles, rubbish, loose boulders and other debris resting on or protruding through the ground surface.
  - 2. Grubbing: The removal and disposal of all objectionable matter such as: logs, poles, stumps, structures, boulders, rubbish, abandoned utilities, and other debris which is embedded in the soil.

##### 1.02 REGULATORY REQUIREMENTS

- A. Conform to applicable code for disposal of debris.
- B. Conform to local Fire Department Codes for burning debris on site. Contractor shall obtain all necessary permits prior to burning on site.

#### PART 2 – PRODUCTS

##### 2.01 MATERIALS

- A. Materials used for protection of trees and vegetation not to be removed during clearing operations shall be at Contractor's option. Materials chosen shall be approved by the ENGINEER prior to installation and upon installation shall be approved by the ENGINEER to ensure maximum protection to vegetation.
- B. Materials used for the repair of trees and vegetation damaged outside clearing limits shown on Drawings shall be at Contractor's option but must be approved by the ENGINEER prior to use.
- C. Wound paint shall be a standard bituminous product.
- D. Herbicides shall not be used unless written approval is given by OWNER.

- E. Explosives shall not be used unless written approval is given by OWNER.
- F. Materials used for the replacement or relocation of existing fences shall be of equal or superior quality to those fence materials existing prior to construction unless specified otherwise on the plans.

## PART 3 – EXECUTION

### 3.01 CLEARING

- A. No tree, shrub, or other landscaping plants shall be removed unless absolutely necessary for the construction of the proposed improvements. All shrubs or landscaping plants removed or damaged during construction shall be replaced by the Contractor at his expense, with landscaping approved by the ENGINEER.
- B. Limits of clearing shall be contained within the areas within Right-of-way, Easement and Construction limits as shown on Drawings.
- C. Existing fences that, at the direction of OWNER, can be reused shall be carefully removed and stored at such a distance they shall not be damaged by construction activity.
- D. Fences that cannot be reused shall be removed to such a distance to allow construction activity and shall be replaced with new materials similar to existing fences upon completion of construction.

### 3.02 GRUBBING

- A. The limits of grubbing shall be contained within Right-of-way, Easement and Construction limits as shown on Drawings.
- B. Stumps and roots shall be grubbed and removed to a depth not less than 2 feet below existing grade or bottom of foundation structure.
- C. All holes or cavities which extend below the subgrade elevation of proposed WORK shall be filled with crushed rock or other suitable material and compacted to the same density as the surrounding material.

### 3.03 PROTECTION

- A. Streets, roads, adjacent property, and other works to remain shall be protected throughout the work in accordance with local laws and ordinances.
- B. Contractor shall make every effort to protect existing bench marks, R/W markers, monuments, iron pins, property corner markers, etc. If any are disturbed or destroyed, CONTRACTOR shall provide services of a registered land surveyor to replace the markers, as directed by OWNER, at no expense to OWNER.

- C. No trees shall be cut outside of areas designated without specific approval of ENGINEER, and any trees designated shall be protected from damage by CONTRACTOR's construction operations.
- D. Existing trees and other vegetation to remain shall be protected as directed by OWNER.
  - 1. Trees shall be protected by fencing, barricades, or wrapping.
  - 2. Shrub and bushes shall be protected by fencing, barricades, or wrapping. Wrapping of bushes and shrubs with plastic film will not be permitted.
  - 3. Shallow-rooted plants shall be protected at ground surface under and in some cases outside the spread of branches by fencing, barricades, or ground cover protection.
- E. In the event that archaeological resources are uncovered, CONTRACTOR shall notify OWNER prior to proceeding with WORK.
- F. It shall be the responsibility of the CONTRACTOR to inspect the site, determine the amount of work required, and include this work in his proposal.
- G. CONTRACTOR is to erect temporary fences as necessary to preserve the privacy of all affected property owners whose existing fences are being removed or relocated. Temporary fences shall be of sufficient strength and quality to prevent escape of animals and livestock and to prevent the intrusion of animals and people.
- H. It is CONTRACTOR's responsibility to coordinate the removal and erection of fences with each affected property owner and to maintain any temporary and relocated fences throughout the contract period.
- I. CONTRACTOR shall assume all costs incurred by any property owner in the loss of animals or livestock due to an insufficiency of replaced or temporary fences during the contract period and maintenance period thereafter.
- J. It is the CONTRACTOR's responsibility to secure any insurance necessary to protect himself in the event of loss or damage to any animals, livestock and property for the duration of the project and maintenance period.

### 3.04 DISPOSAL

- A. All trees within the working easements shown on the CONTRACT DOCUMENTS are property of the existing land owners. If the property owner wishes to keep the timber, the CONTRACTOR shall cut the timber in reasonable lengths and stack such timber on OWNER's property. If the property owner does not wish to keep the timber, the timber shall become the property of the CONTRACTOR and shall be removed from the site and disposed of at the CONTRACTOR's expense. All stumps, rubbish, and other material, not suitable as timber, shall be removed from the site at the CONTRACTOR's expense.

- B. CONTRACTOR shall remove and dispose of all excess material resulting from clearing or site preparation operations. CONTRACTOR shall dispose of such materials in a manner acceptable to OWNER and the local governing authority and at an approved location where such materials can be lawfully disposed.
- C. CONTRACTOR may, at no cost, retain any materials of value from clearing operations for his own use or disposal by sale unless otherwise stated in these Specifications. Such material shall be removed from construction area before date of completion of WORK under these Specifications. OWNER assumes no responsibility for protection or safekeeping of any materials so retained by CONTRACTOR.
- D. Materials will not be disposed of by burying unless approved by OWNER. Buried materials will be covered with not less than 2 feet of earth material.
- E. Burning will be permitted if the required permits have been acquired from the local Fire Department. Burning will be permitted only at times when conditions are considered favorable for burning and at locations approved by proper State or local authorities. Materials to be burned shall be piled neatly and, when in a suitable condition, shall be burned completely. Piling for burning shall be done in such a manner and in such locations as to cause the least fire risk. All burning shall be so thorough that the materials are reduced to ashes. No logs, branches, or charred pieces shall be permitted to remain. CONTRACTOR shall at all times take special precautions to prevent fire from spreading to areas beyond the limits of cleared areas and shall have available at all times, suitable equipment and supplies for use in preventing and suppressing fires. Unguarded fires will not be permitted.
- F. Material to be removed from site shall be removed as it accumulates to prevent any unsightly spoil areas.

END OF SECTION 31 10 00

## SECTION 31 23 16.26

### ROCK REMOVAL

#### PART 1 – GENERAL

##### 1.01 SCOPE OF WORK

- A. Removal of all rock materials discovered during excavation for the purpose of construction. Removal shall include drilling and/or blasting incidental thereto and disposal of excavated materials.

##### 1.02 RELATED WORK

- A. Section 31 23 00 – Excavation and Fill

##### 1.03 REFERENCES

- A. NFPA 495 - Code for the Manufacture, Transportation, Storage, and Use of Explosive Materials.
- B. OSHA 2207 - Construction Industry Standards, Subpart T - Demolition.

##### 1.04 QUALITY ASSURANCE

- A. When necessary for prosecution of the WORK, the use of explosives to assist rock removal may be exercised by CONTRACTOR provided this use is in compliance with all local, State, Federal and other Governmental regulations applying to transportation, storage, use and control of explosives.
- B. Explosives Firm: Company specializing in explosives for disintegration of subsurface rock with documented experience.

##### 1.05 SUBMITTALS

- A. The Contractor shall submit to the ENGINEER the following at least 30 working days prior to beginning any blasting operations:
  - 1. Names, addresses, telephone numbers, and qualifications of the blasting subcontractor(s) and explosives supplier(s), including the designated Blaster-In-Charge.
  - 2. Copies of Training Certificates for the designated Blaster-In-Charge, showing that they have received specialized training in the proper handling of explosives.
  - 3. A Blasting Plan, indicating the methods, materials and equipment to be used. The Blasting Plan should indicate the types of explosives to be used, drilling patterns, and a general layout and schedule for executing the work in accordance with state and local regulations.
  - 4. A ground vibration and air blast monitoring plan, indicating structures that will be monitored, monitoring equipment that will be used, and personnel that will perform the monitoring.

- B. At least 24 hours before each blast round, Contractor shall submit a detailed blast round design plan to the Engineer for quality control and record keeping purposes. Review by the Engineer shall not relieve the Contractor of his responsibilities as provided herein. Each blast round design submittal shall include:
1. Location (state, grid coordinates) and limits of the shot.
  2. Number, diameter, and depth of blast holes to be detonated in the round, and a plan showing the drill hole pattern, spacing and distance to the free face.
  3. Depth of overburden.
  4. Total weight of explosives in the round and the types of explosives to be used.
  5. Loading diagram showing the location of explosives, primers, and initiators; and location, depth, and type of stemming to be used in each hole.
  6. Initiation sequence, including delay timer and delay system, total weight of explosive to be detonated on each delay, and a list of the timing of the delays.
  7. Planned seismic monitoring positions, distances from the blast round, and seismograph types to be used to monitor vibrations and air blast overpressures.
  8. Type and amount of blasting mats and/or depth of soil cover to be used over the top surface of the shot.
  9. Any other information required by applicable state/commonwealth and federal regulations.
- C. Within 24 hours after each blast round, Contractor shall submit a blasting report to the Engineer. The blasting report shall include:
1. Date and time of shot.
  2. Blaster's name.
  3. Number and depth of holes detonated.
  4. Weather conditions at the time of detonation.
  5. Type of explosives and detonators used.
  6. Peak particle velocity of ground motion and primary frequency for all ground vibration monitoring stations.
  7. Peak air blast overpressure measured..
  8. Amount of explosive used in each hole, and maximum weight of explosive detonated on any single delay in the blast round.

#### 1.06 REGULATORY REQUIREMENTS

- A. Conform to Rules and Regulations for Explosives and Blasting Agents by the Georgia Safety Fire Commissioner as contemplated by and pursuant to authority set forth in O.C.G.A. Sections 25-2-4, 25-2-17, and 25-8-9.
- B. Obtain permits from authorities having jurisdiction before explosives are brought to site or drilling is started.
- C. All explosives shall be stored securely in compliance with all laws and ordinances, and all such storage places shall be clearly marked DANGEROUS EXPLOSIVES. Blasting caps, electric blasting caps, detonating primers, and primed cartridges shall not be stored in the same magazine with other explosives or blasting agents. Locked storage shall be provided satisfactory to the ENGINEER, never closer than 1000 feet from any road, building, or camping area.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Rock (Definition): Solid mineral material with a volume in excess of 1/2 cu yd that cannot be broken down and removed by use of heavy construction equipment, such as a Caterpillar Model 215 track-type hydraulic excavator equipped with a short tip radius rock bucket or a bulldozer such as a Caterpillar Model D8K track-type tractor equipped with single tooth hydraulic ripper, without drilling or blasting. Materials which can be loosened with a pick, hard pan, boulders less than 1/2 cu yd in volume, chert, clay, soft shale, soft and disintegrated rock and any similar material shall not be considered as rock. (All materials to be considered unclassified or common excavation.)
- B. Explosives: Shall be suitable for intended purposes at the CONTRACTOR's option subject to review by OWNER and ENGINEER.
- C. Delay Devices: Type recommended by explosives firm to be used as accessory to explosives. Subject to review by ENGINEER.
- D. Blasting Mat: When the use of explosives is necessitated during prosecution of the WORK, CONTRACTOR shall incorporate the use of blasting mats of type recommended by explosives firm to lessen the danger of projectiles occasionally resultant from blasting of rock.

PART 3 – EXECUTION

3.01 EXCAVATION

- A. Beginning work of this Section means acceptance of existing condition.
- B. Rock in utility trenches shall be excavated over the horizontal limits of excavation and to depths as follows:

Size of Pipeline (Inches)	Depth of Excavation Below Bottom of Pipe (Inches)
Less than 4	6
4 to 6	8
Over 8	12

Space below grade for pipe shall then be backfilled with minus 3/4-inch crushed rock or gravel or other approved materials and tamped to proper grade.

3.02 ROCK REMOVAL - MECHANICAL METHOD

- A. Excavate for and remove rock by the mechanical method.



- B. Where pipes are constructed on concrete cradles, rock shall be excavated to bottom of cradle as shown on plans.
- C. Rock excavation near existing pipelines or other structures shall be conducted with utmost care to avoid damage. Injury or damage to other structures and properties shall be promptly repaired to the satisfaction of OWNER and by CONTRACTOR at his own expense.
- D. Rock excavation for all structures and adjacent trenches under this Contract and any other rock excavation directed by OWNER shall be completed before construction of any structure is started in the vicinity.
- E. Remove excavated material from site.
- F. CONTRACTOR shall correct unauthorized rock removal by backfill to grade with Class C concrete in accordance with backfilling and compaction requirements Section 02225 (Earthwork for Utilities) at his own expense.

### 3.03 ROCK REMOVAL - EXPLOSIVES METHODS

- A. If rock is uncovered requiring the explosives method for rock disintegration and removal, the ENGINEER shall be notified immediately so that the surface can be examined. Blasting will not be permitted unless written authorization is given by ENGINEER. (All materials removed shall be considered common excavation).
- B. The CONTRACTOR shall notify any owners of adjacent buildings or structures, and any public utility owners having structures or other installations above or below ground, in writing prior to use of explosives. Such notice shall be given sufficiently in advance so that they may take such steps as they may deem necessary to protect their property from injury and/or damage.
- C. Rock excavation by use of explosives shall be conducted with due regard for safety of persons and property in the vicinity and in strict conformance with requirements of local, State and Federal ordinance, laws and regulations governing the use of explosives.
- D. Blasting shall be conducted so as not to endanger persons or property, and whenever required, the blast shall be covered with mats or otherwise satisfactorily confined. The CONTRACTOR shall be held responsible for and shall make good any damage caused by blasting or accidental explosions.
- E. The CONTRACTOR shall permit only authorized and qualified persons to handle and use explosives.
- F. Smoking, firearms, matches, open flame lamps, and other fires, flame or heat producing devices and sparks shall be prohibited in or near explosive magazines or while explosives are being handled, transported or used.
- G. No person shall be allowed to handle or use explosives while under the influence of intoxicating liquors, narcotics, or other dangerous drugs.

- H. All explosives shall be accounted for at all times. Explosives not being used shall be kept in a locked magazine, unavailable to persons not authorized to handle them. The CONTRACTOR shall maintain an inventory and use record of all explosives. Appropriate authorities shall be notified of any loss, theft, or unauthorized entry into a magazine.
- I. No explosives or blasting agents shall be abandoned.
- J. CONTRACTOR's employees authorized to prepare explosive charges or conduct blasting operations shall use every reasonable precaution including, but not limited to, visual and audible warning signals, flags, or barricades, to ensure safety.
- K. It shall be CONTRACTOR's responsibility to incorporate the use of seismic monitoring should rock excavation, by use of explosives, occur within 300 feet of any residential, commercial, or of any miscellaneous structure. Blasting conducted near dams or bridge foundations shall incorporate the use of a seismic monitor should such blasting occur within 500 feet of said dam and/or bridge foundation. CONTRACTOR shall maintain all seismic records and blasting logs to be furnished to ENGINEER as specified.
- L. Disintegrate rock and remove from excavation.
- M. Cut away rock at excavation bottom to form level bearing.
- N. Remove shaled layers to provide sound and unshattered base for pipe foundations.
- O. Remove excavated material from site.
- P. Correct unauthorized rock removal or overbreak in accordance with backfilling and compaction requirements at his own expense.

#### 3.04 FIELD QUALITY CONTROL

- A. Provide for visual inspection of bearing surfaces and cavities formed by removed rock for inspection by ENGINEER or his representative prior to laying of pipe.

END OF SECTION 31 23 16.26

## SECTION 32 02 00

### SITE RESTORATION

#### PART 1 – GENERAL

##### 1.01 SCOPE OF WORK

- A. Work included in this section consists of, but is not limited to: the restoration of pavement (asphalt, concrete and granular), driveway, concrete curbs and gutters, sidewalks, fences, walls, underground and above ground utilities, repair, replacement and/or relocation. Restoration of the landscaping, i.e., shrubs, trees and grassing, is also part of this work.
- B. The CONTRACTOR shall visit the site prior to submitting a bid and become familiar with the existing conditions. No additional compensation or time extensions will be given due to the contractor's execution of the work described above.
- C. No separate payment will be made for work covered under this section. Costs should be included with the price bid for other items.

##### 1.02 QUALITY ASSURANCE

- A. The CONTRACTOR shall notify the Utility Protection Center at least 72 hours prior to beginning any construction. Call TOLL FREE 811.
- B. Any existing site improvements damaged during construction will be repaired at the CONTRACTOR's expense, to its existing condition or as directed by the ENGINEER.

#### PART 2 – PRODUCTS

##### 2.01 MATERIALS

- A. Existing materials may be reused when restoring the construction site to original condition unless those materials have been damaged or deteriorated in any way. If material cannot be reused as determined by the ENGINEER, it shall be replaced with new material of like type.

#### PART 3 – EXECUTION

##### 3.01 GENERAL

- A. Particular care shall be taken to minimize disturbance to existing site improvements within the limits of construction. The CONTRACTOR will take whatever measures are necessary to prevent damage which may include, but is not limited to, erection of barriers, tree protective fencing, shoring and bracing of excavations and staging of the construction.

### 3.02 CONSTRUCTION

- A. All work will proceed in an orderly sequence and the construction will be done in a workmanlike manner. No excavations will be allowed to remain open overnight and they will either be properly backfilled or covered with steel plates to allow safe crossing of trenches by vehicles and/or pedestrians.

### 3.03 MAINTENANCE

- A. The CONTRACTOR will notify the ENGINEER to review restored areas as soon as construction is complete and no further disturbances/damages would be likely to occur.
- B. The CONTRACTOR shall warrant the work free from defects of material and workmanship for a period of one year after acceptance.
- C. Clean up work areas by removing any scraps, rubbish or surplus material and dispose of them properly off the project site.
- D. Wash and hose down paved surfaces to remove all mud, debris, and other extraneous material, just prior to final review.

END OF SECTION 32 02 00

## SECTION 32 16 13

### CURBS, GUTTERS, SIDEWALKS AND DRIVEWAYS

#### PART 1 – GENERAL

##### 1.01 SCOPE OF WORK

- A. WORK included in this Section consists of repair or replacement of sidewalks, driveways, curbs and gutters, and storm drainage structures.

##### 1.02 RELATED WORK

- A. Section 02 22 50 - Earthwork for Utilities

##### 1.03 REFERENCES

- A. Georgia Department of Transportation (GDOT) Standard Specifications, Construction of Transportation System, most current edition.
- B. American Society for Testing and Materials (ASTM) Annual Book of Standards: ASTM C 150, Standard Specification for Portland Cement.

#### PART 2 – PRODUCTS

##### 2.01 CRUSHED STONE BASE

- A. Stone base shall be a Graded Aggregate Base conforming to Section 815 of GDOT Standard Specifications.

##### 2.02 CONCRETE

- A. Shall be ready-mixed concrete conforming to ASTM C 150, Type II Concrete.

##### 2.03 HOT MIX ASPHALTIC CONCRETE

- A. Mix Type “E” conforming to Section 400 of GDOT Standard Specifications.

##### 2.04 STORM DRAIN PIPE

- A. In accordance with Section 550 of GDOT Standard Specifications.

##### 2.05 TACK COAT

- A. In accordance with Section 413 of GDOT Standard Specifications.

## PART 3 – EXECUTION

### 3.01 GENERAL

- A. Restore all sidewalks, driveways, curbs and gutters, and storm drains to or better than the original, but not less thickness or quality than specified herein or shown on the Drawings.
- B. Carefully backfill any excavated area on which sidewalks, driveways or curbs and gutters are to be placed as specified in Section 02225 of these Specifications as applicable.
- C. If, prior to the expiration of the warranty period, any sidewalk storm drain, driveway or curb and gutter which has been damaged, due to undermining, or for any other cause which may be attributed to the work of the CONTRACTOR, the CONTRACTOR shall remove such damaged work and all loose earth. He shall then backfill with crushed stone base, properly compacted and replace damaged material/structure.
- D. WORK which the CONTRACTOR may do in connection with the replacement and repair of damaged work during the period of maintenance, shall be done at his expense, in accordance with the rules and requirements of the authority within whose jurisdiction such pavement is located, and in accordance with the additional requirements of the specifications, and the CONTRACTOR shall furnish evidence to the ENGINEER that the work has been completed to the satisfaction of such authority.
- E. Before replacing any sidewalk, driveway or curb and gutter, remove the existing sidewalk, driveway and/or curb and gutter back from the edge of excavation at least 12 inches or to the nearest joint if the nearest joint is within two (2) feet.
- F. All cuts shall be made by channeling machine, pneumatic tools, or such other methods as will furnish a straight clean cut in the concrete without undue shattering.
- G. The CONTRACTOR shall provide crushed stone base over trenches after completion of backfill.
- H. Should settlement, cracks or other indications of failure appear in concrete, pavement, driveways, curbs, pipes, or other structures the defective material shall be removed to the extent necessary to secure firm, undisturbed bearing and shall be relaid in a satisfactory manner.

### 3.02 CURB AND GUTTER

- A. Portland Cement Concrete curbs and gutters shall conform to Section 441 of Georgia D.O.T. Standard Specifications. Match existing curb. Construct 1/2" wide expansion joints with premolded joints filler across curb at all tangent points and at fifty feet intervals and one inch wide expansion joint filler and 3/4" joint sealing between curbs and concrete paving. Finish curb surface with dense uniform texture equal to burlap drag, and cross-score with 1/4" deep cross joints at ten foot intervals.

- B. Concrete curbs and gutters shall be finished in accordance with GDOT Standard Specifications. Face forms shall be removed as soon as possible and the exposed surfaces finished with a wood float. Straightedging, done along the edge of the gutter and top of curb and median shall conform to those requirements for the adjacent pavement, but with no irregularities to exceed 1/4 inch in 10 feet.
- C. Machine methods of placing may be used, providing the end result is satisfactory.

### 3.03 CONCRETE SIDEWALK

- A. CONTRACTOR shall relay/restore all sidewalks disturbed by the CONTRACTOR during construction.
- B. Sidewalks shall conform to requirements of Section 441 of Georgia D.O.T. Standard Specifications. Minimum sidewalk thickness shall be 4 inches. Provide transverse contraction joints at 6' interval by cutting a groove in the fresh concrete 1" deep with a jointer having an approved radius and a cutting blade not over 1/8" thick.
- C. Construct 1/2" wide expansion joints with premolded joint filler across walks at a maximum of fifty feet intervals. Finish to a broom and burlap drag gritty surface. Tool all joints and all edges to provide smooth border between sections. Match existing sidewalks.
- D. Concrete sidewalks shall be given a finish made by stiff-bristle brooming. The surface shall be tested with a 10 foot straightedge laid parallel to the centerline. Any irregularities in excess of 1/4 inch in 10 feet shall be eliminated while the concrete is still plastic. Concrete sidewalk constructed as curb cut (wheelchair) ramps shall have a rough or textured finish.

### 3.04 RESTORING STORM DRAINAGE PIPE

- A. The CONTRACTOR shall restore and replace storm drainage pipe and appurtenances when they are disturbed during execution of the work under this Contract at no additional cost to the OWNER.
- B. The storm drainage structures shall be replaced to the same horizontal and vertical location prior to their removal or disturbance.
- C. Materials used in the replacement of storm drainage structures shall be of the same size, type, and length of that removed.
- D. Storm drainage pipe damaged due to the negligence on the part of the CONTRACTOR shall be replaced at the CONTRACTOR'S expense.

### 3.05 CONCRETE AND ASPHALT DRIVEWAYS

- A. CONTRACTOR shall restore all driveways disturbed by the CONTRACTOR during construction.
- B. Driveway sections shall be removed by saw cutting pavement.

- C. Construct driveways in accordance with the Drawings, and GDOT Standard Specification Section 400 for asphalt, and GDOT Section 430 for concrete. Finished elevations shall match existing elevations.

### 3.06 GRAVEL DRIVEWAYS

- A. CONTRACTOR shall restore all driveways disturbed by the CONTRACTOR during construction.
- B. Construct driveways in accordance with the Drawings, and GDOT Standard Specification Section 310. Finished elevations shall match existing elevations.

### 3.07 CLEAN UP

- A. Before work shall be considered complete, remove material not used and rubbish of every character from job site.
- B. Any subsequent settlement of pavement, exposed surfaces, or backfill shall be repaired and the surface shall be brought to grade.
- C. Any and all items disturbed by the construction shall in every case be restored to their original or better condition as closely as possible prior to completion of the construction.

END OF SECTION 32 16 13



## SECTION 32 92 00

### GRASSING

#### PART 1 – GENERAL

##### 1.01 SCOPE

- A. Work under this section includes preparation of subsoil, placement of topsoil and seeding or sodding all areas disturbed during construction activities or large grass fields as defined on the drawings.
- B. This section also includes maintenance of all grassed areas. Maintenance consists of regular mowing, fertilizing, and regular watering until owner acceptance of project.

##### 1.03 REFERENCES

- A. "Manual for Erosion and Sediment Control in Georgia" - latest edition, prepared by the Georgia Soil and Water Conservation Commission.
- B. ASPA (American Sod Producers Association) - Guide Line Specifications to Sodding.
- C. Standard specifications, Construction of Roads and Bridges - latest edition, State of Georgia Department of Transportation.

##### 1.04 DEFINITIONS

- A. Weeds: Include Dandelion, Jimsonweed, Quackgrass, Horsetail, Morning Glory, Rush Grass, Mustard, Lambsquarter, Chickweed, Cress, Crabgrass, Canadian Thistle, Nutgrass, Poison Oak, Blackberry, Tansy Ragwort, Bermuda Grass, Johnson Grass, Poison Ivy, Nut Sedge, Nimble Will, Bindweed, Bent Grass, Wild Garlic, Perennial Sorrel, and Brome Grass.

##### 1.05 QUALITY ASSURANCE AND SUBMITTALS

- A. Provide seed mixture in containers showing percentage of seed mix, year of production, net weight, date of packaging, and location of packaging.
- B. Ensure strict compliance with "Manual for Erosion and Sediment Control in Georgia" - latest edition, prepared by the Georgia Soil and Water Conservation Commission.
- C. Sod: Minimum age of 18 months with root development that will support its own weight without tearing when suspended vertically by holding the upper two corners.
- D. Submit sod certification for grass species and location of sod source.
- E. Submit certification of type and quantity of fertilizer and pH control material applied.
- F. Submit seed, fertilizer, and mulch mixture proposed for hydraulic seeding, if used.

## 1.06 REGULATORY REQUIREMENTS

- A. Comply with regulatory agencies for fertilizer and herbicide composition.
- B. Provide certificate of compliance from authority having jurisdiction indicating approval of seed mixture.

## 1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver grass seed mixture in sealed containers. Seed in damaged packaging is not acceptable.
- B. Deliver fertilizer in waterproof bags showing weight, chemical analysis, and name of manufacturer.
- C. Deliver sod on pallets. Protect exposed roots from dehydration.
- D. Do not deliver more sod than can be laid within 36 hours.

## 1.10 MAINTENANCE SERVICE PERIOD

- A. Furnish maintenance of grassed areas for three (3) months from Date of Substantial Completion

## PART 2 – PRODUCTS

### 2.01 SEED MIXTURE

- A. Seed Mixture: To be based on the properly proportioned mix specified for the planting dates listed on the Drawings.
- B. Sod: ASPA Nursery grown cultivated grass sod; type indicated with strong fibrous root system, free of stones, burned or bare spots; containing no more than 5 weeds per 1000 sq. ft. Type of sod is to match existing. CONTRACTOR to determine type required.

### 2.02 SOIL MATERIALS

- A. Topsoil: Fertile, agricultural soil, typical for locality, capable of sustaining vigorous plant growth, taken from drained site; free of subsoil, clay or impurities, plants, weeds and roots; pH value of minimum 5.4 and maximum 7.0.

### 2.03 ACCESSORIES

- A. Mulching Material: Oat straw, wheat straw, or wood cellulose fiber, free from weeds, foreign matter detrimental to plant life, and dry. Hay is acceptable.
- B. Fertilizer: Commercial fertilizer recommended for grass, with fifty percent of the elements derived from organic sources; of proportion necessary to eliminate any deficiencies of topsoil to the following proportions: Nitrogen - 5 percent, Phosphoric Acid - 10 percent, Soluble Potash - 15 percent.

- C. Lime: Natural limestone containing not less than 85% of total carbonates, ground so that not less than 90% passed a 10-mesh sieve and not less than 50% passes a 100-mesh sieve. Provide lime in the form of dolomitic limestone meeting the specified requirements.
- D. Water: Clean, fresh and free of substances or matter which could inhibit vigorous growth of grass.
- E. Herbicide: "Round-up" by Monsanto, or approved equivalent.
- F. Stakes: Softwood or oak lumber, chisel pointed, or steel posts.
- G. Wood Pegs: Softwood, sufficient size and length to ensure anchorage of sod.
- H. Wire Mesh: Interwoven Hexagonal plastic mesh - 2 inches.

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Verify that prepared soil base is ready to receive the work of this Section.

### 3.02 PREPARATION OF SUBSOIL

- A. Prepare subsoil to eliminate uneven areas and low spots. Maintain lines, levels, profiles and contours. Make changes in grade gradual. Blend slopes into level areas.
- B. Remove foreign materials, weeds and undesirable plants and their roots. Remove contaminated subsoil.
- C. Scarify subsoil to a depth of 3 inches where topsoil is to be placed. Repeat cultivation in areas where equipment, used for hauling and spreading topsoil, has compacted sub-soil.

### 3.03 PLACING TOPSOIL

- A. Spread topsoil to a minimum depth of 4 inches over area to be seeded or 2 inches over area to be sodded. Rake until smooth.
- B. Place topsoil during dry weather and on dry unfrozen subgrade.
- C. Remove vegetable matter and foreign non-organic material from topsoil while spreading.
- D. Grade topsoil to eliminate rough, low or soft areas, and to ensure positive drainage.

### 3.04 FERTILIZING

- A. Apply fertilizer at a rate of 1500 lbs/ac.
- B. Apply lime at a rate of 2000 lbs./ac.

- C. Apply after smooth raking of topsoil.
- D. Do not apply fertilizer at same time or with same machine as will be used to apply seed. Do not apply fertilizer more than 48 hours before laying sod.
- E. Mix thoroughly into upper 2 inches of topsoil.
- F. Lightly water to aid the dissipation of fertilizer.

### 3.05 SEEDING

- A. Grass Seed: See permanent grassing requirements on the Drawings. Grass species to match existing species when replacing grass lawns of property owners.
- B. Apply seed at a rate shown on drawings, evenly in two intersection directions. Rake in lightly.
- C. Do not seed areas in excess of that which can be mulched on same day.
- D. Planting Season: As shown on Drawings.
- E. Do not sow immediately following rain, when ground is too dry, or during windy periods.
- F. Immediately following seeding, apply mulch at a rate of 2 tons per acre. Maintain clear of shrubs and trees.
- G. Apply water with a fine spray immediately after each area has been mulched. Saturate top 4 inches of soil.

### 3.06 HYDROSEEDING

- A. Products
  - 1. Grass seed: See Permanent Grassing requirement as indicated on the drawings. Grass species to match existing species when replacing grass lawns of property owners.
  - 2. Lime shall be finely ground so that 98 percent will pass through a 20-mesh sieve and not less than 70 percent will pass through a 100-mesh sieve. Rate of lime shall be 2000 pounds (1 ton) to 4000 pounds (2 tons) per sieve.
  - 3. Fertilizer shall be either 6-12-12 or 10-10-10 P-K-N at a rate of 1500 pounds per acre.
  - 4a. Fiber mulch shall be wood cellulose mulch or wood pulp fiber at the rate of 500 pounds per acre.
  - 4b. Where slopes of 3/4:1 or steeper are to be hydroseeded, the fiber mulch shall be 1000 pounds per acre.
- B. Mixing
  - 1. Thoroughly mix specified materials with water until uniformly blended into a homogeneous slurry suitable for application.
  - 2. Where inoculants are to be used, four (4) times the amount of inoculant recommended by the manufacturer shall be used.

- C. Application
  - 1. Using equipment specifically designed for hydroseeding, apply the slurry at a minimum rate of 1500 pounds per acre, or at the specified seed-sowing rate as shown on the drawings. Apply seed slurry evenly in two intersecting directions with a hydraulic seeder.
  - 2. Do not sow immediately following rain, when ground is too dry, or during windy periods.
  - 3. Apply water with a fine spray immediately after each area has been mulched. Saturate top 2 inches of soil.

### 3.07 SEED PROTECTION

- A. Cover seeded slopes where grade is greater than 2:1 with erosion fabric. Roll fabric onto slopes without stretching or pulling.
- B. Lay fabric smoothly on surface, bury top end of each section in 6 inch deep excavated topsoil trench. Provide 12 inch overlap of adjacent rolls. Backfill trench and rake smooth, level with adjacent soil.
- C. Secure outside edges and overlaps at 36 inch intervals with stakes.
- D. Lightly dress slopes with topsoil to ensure close contact between fabric and soil.
- E. At sides of ditches, lay fabric laps in direction of water flow. Lap ends and edges minimum 6 inches.

### 3.08 LAYING SOD

- A. Moisten prepared surface immediately prior to laying sod.
- B. Lay sod within 36 hours after harvesting to prevent deterioration.
- C. Lay sod tight with no open joints visible, and no overlapping; stagger end joints 12 inches minimum. Do not stretch or overlap sod pieces.
- D. Lay smooth. Align with adjoining grass areas.
- E. Place top elevation of sod to be flush with adjoining paving or curbs.
- F. On slopes greater than 2:1, lay sod perpendicular to slope and secure every row with wooden pegs at maximum 2 feet on center. Drive pegs flush with soil portion of sod.
- G. Prior to placing sod on slopes exceeding 8 inches per foot or where indicated, place plastic mesh over topsoil. Securely anchor in place with wood pegs sunk firmly into the ground.
- H. Water sodded areas immediately after installation. Saturate sod to 4 inches of soil.

## PART 4 – ACCEPTANCE

### 4.01 GENERAL REQUIREMENTS

- A. CONTRACTOR shall provide plant establishment of the specified permanent vegetation prior to final acceptance of the Project. Plant Establishment shall consist of preserving, protecting, watering, reseeding, or replanting and other such work and at such time as may be necessary to keep the grassed areas in a satisfactory condition. CONTRACTOR shall water the grassed areas during such period as frequently as necessary to promote maximum practicable growth. Water shall be provided by the CONTRACTOR at his expense.
- B. ENGINEER may require replanting at any time if an area or a portion of such area shows unsatisfactory growth. Except as otherwise specified or permitted by the ENGINEER, areas to be replanted shall be prepared in accordance with the requirements of the Specifications as if such replanting was the initial planting. However, the type of fertilizer and the application rate of fertilizer to be furnished and applied by CONTRACTOR as a part of acceptance, occasioned by replanting, shall be determined by soils tests or otherwise established.

### 4.02 GROWTH AND COVERAGE

- A. Maintain newly graded, topsoiled, and seeded areas until final acceptance. Restore areas showing settlement or washes to specified grades at CONTRACTOR's expense. Newly seeded areas shall be watered as necessary or reseeded at the CONTRACTOR's expense until final acceptance.
- B. It shall be the CONTRACTOR's responsibility to provide satisfactory growth and coverage. Growth and coverage on areas grassed as specified shall be considered to be in reasonably close conformity with the intent of the Contract with the vegetation, exclusive of that from seed not expected to have germinated and shown growth at that time, has reached a point of maturity such that each area shows a satisfactory visible growth with no bare spots larger than one square foot. Bare spots shall be scattered and the total bare areas should not comprise more than 1/100 of any given area.

END OF SECTION 32 92 00