

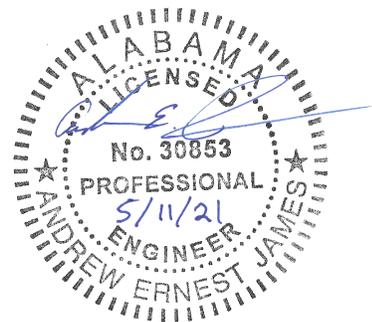
**CONTRACTUAL DOCUMENTS, GENERAL CONDITIONS,  
SPECIAL PROVISIONS, TECHNICAL SPECIFICATIONS,  
AND INSTRUCTION TO BIDDERS**

**FOR**

**BON SECOUR RIVER CONSTRUCTED WETLANDS**

**CITY OF FOLEY, ALABAMA**

**MAY 2021**



Bon Secour River  
Constructed Wetlands

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## INVITATION FOR BIDS

Sealed Bids will be received, opened, and read aloud in public session by the City of Foley, Alabama, for **Bon Secour River Constructed Wetlands** at **2:00 P.M. on Tuesday, June 8, 2021** in the Foley City Hall Council Chambers. Work will include the construction of emergent wetlands, restoration of perineal stream channel, and construction of new stream channel. The proposed work will also include the regrading of a 93-acre site, erosion control, wetland and floodplain restoration and plantings, and invasive species control and management. Qualified contractors are invited to Bid. This contract is for the purpose of providing all materials and labor to install the Bon Secour River Constructed Wetlands in conformance with the Specifications.

Copies of the plans, specifications, and contract documents may be inspected and/or obtained at the following location:

City of Foley                    or  
City Hall  
407 East Laurel Avenue  
Foley, AL 36535  
Telephone No. (251) 970-2418

Volkert, Inc.  
1680 West Second Street, Suite B  
Gulf Shores, AL 36542  
Telephone No. (251) 968-7551

Upon Request the contractor may obtain a non-transferrable digital copy of the plans and specifications.

**A mandatory pre-bid conference will be held at 10:00 A.M. on Tuesday, June 1, 2021 in the Council Chambers in City Hall. Bids from Bidders who do not attend this conference will not be accepted.**

The Contractor will be required to obtain a business license from the City to operate within the Corporate Limits.

Sealed bids may be mailed or delivered directly to the City of Foley prior to the public opening. All bidders must use the Bid Form provided in the Contract Documents and show on the envelope "SEALED BID," the Bidder's name, the Contractor's license number, the project number, and the opening date and time. Contact Andrew James at (251) 968-7551 or [andrew.james@volkert.com](mailto:andrew.james@volkert.com) with any questions.

Sealed Bids must be sent to the following address:

Mail to:                    City of Foley  
                                  Post Office Box 1750  
                                  Foley, AL 36536  
Telephone No.            (251) 970-2418

Physical: City of Foley  
                                  407 East Laurel Avenue  
                                  Foley, AL 36535

The lowest responsive, responsible Bid will be accepted with key consideration based upon the benefit to the public. However, the City of Foley, Alabama, reserves the right to reject any and all Bids, to waive any irregularity in the Bids received, and to accept or reject any items of the Bid for the benefit of the public. No conditional Bids will be accepted. No Bid may be withdrawn for a period of thirty (30) days after the scheduled closing date and time for the receipt of Bids.

THE CITY OF FOLEY, ALABAMA

## **INSTRUCTIONS TO BIDDERS**

### **1. BID FORMS**

A complete set of Bidding Documents is included herein.

### **2. EXAMINATION OF DOCUMENTS AND PROJECT SITE**

- A. Carefully examine the Bidding Documents, Specifications and the work site. Bids shall include all costs required to execute the work under the existing conditions.
- B. Direct inquiries and questions to the Engineering Project Manager in writing at [Andrew.james@volkert.com](mailto:Andrew.james@volkert.com)
- C. Extra payments will not be made for conditions which can be determined by examining the documents and the site.

### **3. INTERPRETATIONS AND ADDENDA**

- A. Should the Bidder find discrepancies, ambiguities, or omissions in the Specifications, or should he be in doubt as to their meaning, he shall at once notify the Construction Manager.
- B. The Construction Manager will issue Addenda to clarify discrepancies, ambiguities, or omissions in the Specifications.
- C. Addenda will be faxed or emailed to each bidder. Addenda shall become part of the contract and all bidders must acknowledge receipt of Addenda on their bid form or their bid will be rejected. Bidders shall be bound by ALL Addenda.

### **4. MODIFICATIONS AND WITHDRAWAL OF BIDS**

- A. Bids may not be modified after submittal.
- B. Any bidder may withdraw his Bid, either personally or by written request, at any time prior to scheduled time for opening bids.
- C. No Bidder may withdraw his Bid for a period of thirty (30) days after date set for opening thereof, and all Bids shall be subject to acceptance by the Owner during this period.

### **5. MANDATORY PRE-BID CONFERENCE**

A mandatory pre-bid conference will be held prior to the bid opening. Bids from Bidders who do not attend this conference will be rejected. The date of the pre-bid conference is shown in the Invitation to Bid.

## 6. AWARD OF CONTRACT

- A. The Owner will award a single contract, dependent upon availability of funds.
- B. The contract will be awarded to the lowest responsive qualified contractor, subject to Owner's right to reject any or all Bids and to waive informality and irregularity in Bids and bidding.
- C. The Owner shall have the right to accept Alternates in any order or combination, unless otherwise specifically provided in the Bid Documents, and to determine the low Bidder on the basis of the sum of the Base Bid and Alternates accepted.
- D. The bid award of a contract in excess of Fifty Thousand Dollars (\$50,000.00) will be contingent upon the results of a background check of the successful low bidder as stated in Ordinance No. 1029-08. According to this ordinance, the City of Foley will take criminal histories into account when deciding whether a low bidder is qualified to do work for the City.

## 7. QUALIFICATION OF CONTRACTORS

- 7.01 To demonstrate Bidder's qualifications to perform the Work, Bidder shall submit with its Bid (a) written evidence establishing its qualifications such as financial data, previous experience, and present commitments, and (b) the following additional information:
- A. Evidence of Bidder's authority to do business in the state where the Project is located.
  - B. Bidder's state or other contractor license number, if applicable.
  - C. Subcontractor and Supplier qualification information;
    - 1. A Bidder shall be prepared to retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of the Work if required by the Bidding Documents (most commonly in the Specifications) to do so. If a prospective Bidder objects to retaining any such Subcontractor, Supplier, or other individual or entity, and the concern is not relieved by an Addendum, then the prospective Bidder should refrain from submitting a Bid.
    - 2. Subsequent to the submittal of the Bid, Owner may not require the Successful Bidder or Contractor to retain any Subcontractor, Supplier, or other individual or entity against which Contractor has reasonable objection.
    - 3. The apparent Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to Owner a list of the Subcontractors or Suppliers proposed for the following portions of the Work: instream work, riparian buffer plantings, and site erosion and sediment control. If requested by Owner, such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, or other individual or entity. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder shall submit

a substitute, Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.

4. If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, or other individuals or entities. Declining to make requested substitutions will constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to subsequent revocation of such acceptance as provided in Paragraph 7.06 of the General Conditions.

D. Organizational chart showing qualified personnel involved in each aspect of project implementation, including project managers, surveyors, engineers, superintendents, foremen, vegetation installers, inspectors, and operators.

E. Resumes of key personnel who will work on this project, including relevant training and experience on relevant stream restoration projects. Resumes should document that the full-time responsible on-site project Superintendent and/or Foreman has sufficient training and successful experience constructing at least five (5) successful stream restoration projects with the following ecological restoration practices:

A. High-accuracy excavation and grading of stream channels and floodplains to provide permanent functional natural channel design features including thalweg, riffle, step, pool, run, glide, point bar, inner berm, bankfull bench, and floodplain depressions. GPS machine control technologies are highly recommended.

B. High-accuracy installation of boulder structures with size requirements of at least 1000 pounds for streamflow deflection and grade control. Typical structures include vanes, cross-vanes, step-pools, j-hook vanes, boulder plunge pools, weirs, boulder clusters, and constructed riffles.

C. High-accuracy installation of log structures with size requirements of at least 30-ft length by 2-ft diameter for streamflow deflection and grade control. Typical structures include log sills, log rollers, j-hook log vanes, log weirs, and constructed riffles.

D. Successful installation of native riparian vegetation for bank stabilization and riparian habitat, including temporary erosion control grasses, permanent deep-rooted native grasses, wetland plants, live stakes, on-site transplants, bare-root seedlings, and container plants.

E. High-accuracy installation of stormwater collection and treatment ponds, conveyances, outfall pipes, floodplain wetlands and vegetative swales for capturing, treating, and discharging concentrated polluted stormwater in a riparian floodplain setting that contributes to overall stream system health and integrity.

F. Successful erosion and sedimentation control measures during river project construction including pump-around, flow diversion, sediment fence, temporary check dams, and other turbidity reduction measures.

7.02 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.

7.03 No requirement in this Article 7 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.

Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications

## **8. EXECUTION OF CONTRACT**

A. A felony background check shall be completed upon Notice of Award for any project in excess of Fifty Thousand Dollars (\$50,000.00). Within ten (10) days of receiving notice of successful background check results, the Contractor shall deliver to Owner policies of insurance or insurance certificates as required by Contract Documents. All policies or certificates of insurance shall be approved by Owner before the successful Contractor may proceed with Work.

B. The Contractor shall commence work within ten (10) days following receipt of the Notice to Proceed or on a date stipulated in the authorization to proceed.

## **9. LAWS AND REGULATIONS**

The Contractor's attention is directed to the fact that all applicable State laws, Municipal Ordinances and the Rules and Regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout and they will be deemed to be included in the contract the same as though herein written out in full.

## **10. ALABAMA LICENSED CONTRACTOR**

All Contractors submitting bids in excess of Fifty Thousand Dollars (\$50,000.00) must be licensed Contractors in the State of Alabama and must give their License Number on their Bid Form. Contracts less than Fifty Thousand Dollars (\$50,000.00) will not require a general Contractor's license; however, all other requirements shall remain the same.

## **11. BID BOND**

All bids in excess of Fifty Thousand Dollars (\$50,000) shall require a bid bond equal to 5% of contract amount or \$10,000 whichever is lesser. Bid bonds will be returned by the Owner after the contract has been awarded.

## **12. PERFORMANCE BOND**

If the winning bid is in excess of Fifty Thousand Dollars (\$50,000), the Contractor shall obtain a performance bond equal to 100% of contract amount and shall be provided within ten (10) days of Notice of Award.

## **13. LABOR & MATERIALS BOND**

If the winning bid is in excess of Fifty Thousand Dollars (\$50,000), the Contractor shall obtain a Labor & Materials Payment Bond equal to but not less than 50% of contract amount and shall be provided within ten (10) days of Notice of Award. The bond shall include payment of reasonable attorney's fees incurred by successful claimants in civil actions.

**14. COMPLETION DATE**

Upon receipt of the Notice to Proceed, the Contractor shall commence the work within ten (10) days from the Date of the Notice and shall complete the work within **Three hundred and sixty (360)** calendar days from the date of the Notice.

**15. LIQUIDATED DAMAGES**

- A. Deduction at the rate of one thousand eight hundred and fifty dollars (\$1,850) per day shall be made from the total Contract price for each and every calendar day beyond the three hundred sixty (**360**) days from the date of Notice to Proceed for any work not satisfactorily completed.
- B. The above-mentioned sum shall be deducted as Liquidated Damages and not as penalty, the said sum being specifically agreed upon in advance as a measure of damage to the Owner on account of the delay, and the Contract price reduced by the aggregate of the entire damages so deducted shall be accepted in full satisfaction of all work executed under the contract.

**16. COMPLIANCE WITH IMMIGRATION AND NATIONALITY ACT**

The City will not intentionally award publicly funded contracts to any contractor who knowingly employs unauthorized alien workers, constituting a violation of the employment provisions contained in 8 U.S.C. Bid No. 02-017-5-Section 1324a (e) [Section 274A (e) of the Immigration and Nationality Act (“INA”)]. The City shall consider the employment by any contractor of unauthorized aliens a violation of Section 274A (e) of the INA. Such violation by the Recipient of the employment provisions contained in Section 274A (e) of the INA shall be grounds for unilateral cancellation of this Agreement by the City.

Contractor is required to comply with the Immigration Reform and Control Act of 1986 (IRCA) which requires all individuals hired after November 6, 1986 to provide their employers with proof of citizenship or authorization to work in the United States. City may at any time request to inspect proof of citizenship.

**17. Maintenance Service and Maintenance Bond**

Upon acceptance of the work the contractor shall perform maintenance of the project in accordance with the plans and specifications for a period of twenty-four (24) months from the date of final acceptance. The contractor shall submit with his final application for Pay a maintenance bond (sometimes referred to as a warranty bond) for twenty-five

percent (25%) of the contract amount. The maintenance bond shall be in effect for the entirety of the maintenance period.

**18. BEASON-HAMMON ACT COMPLIANCE**

Effective January 1, 2012 under the “Beason-Hammon Alabama Taxpayer and Citizen Protection Act,” Act No. 2011-535, Alabama Code (1975) Section 31-13-1, Et Seq., before entering into a contract with the City to:

1. Perform a service;
2. Perform work;
3. Provide a product;
4. Accept a grant; and/or
5. Accept an initiative

the State of Alabama requires the business entity be enrolled in the E-Verify Program.

Before any contract can be let, purchase can be made, or payment can be issued by the City of Foley after January 1, 2012, the contractor must provide proof of enrollment in the form of a copy of the memorandum of understanding as provided in Appendix A.

**A COMPLETED MEMORANDUM OF UNDERSTANDING MUST BE RETURNED IN THE SEALED BID.**

**PROPOSAL FORM**

TO: City of Foley  
P.O. Box 1750  
Foley, AL 36536

BIDDER: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

OWNERS: City of Foley, Alabama

PROJECT: **Bon Secour River Constructed Wetlands**

The BIDDER in compliance with the INSTRUCTIONS TO BIDDERS having received the Plans and Specifications for the PROJECT, and having received, read, and taken into account all ADDENDA as follows: (List number and dates of each Addendum) \_\_\_\_\_

and having inspected the site(s) and the conditions affecting and governing the accomplishment of the PROJECT, the undersigned proposes to furnish all materials and perform all labor, as specified to complete the base bid and any alternate bid(s) for the following:

Bid Item	Item Description	Unit	Quantity	Unit Price	Extension
2.1	Mobilization	LS	1		
2.2	Construction Stakeout & Geometric Controls	LS	1		
2.3	Clearing and Grubbing	AC	46		
2.4	Construction Access	LS	1		
3.2	Unclassified Excavation and Grading	CY	273,650		
4.2	Rock Cross Vane	EA	2		
4.3	Rock Floodplain Sill	LF	100		
4.4	Constructed Bolder Riffle	EA	2		
4.5	Wood Toe	LF	3,560		
4.6	Log Sill	EA	18		
5.1	Stabilized Construction Entrance	EA	1		
5.2	Silt Fence	LF	5,742		
5.5	Mulch	AC	42		
5.6	Coir Fiber Mat	SY	106,654		
5.7	Pump Around Operation	LS	1		
6.2	Permanent Seeding	AC	65		
6.3	Live Stakes	EA	27,348		
6.4	Bare Root Vegetation	AC	42		
6.5	Solid Sodding	SY	13,000		
7.1	Invasive Species Removal	LS	1		
7.2	As-Built Survey	LS	1		
--	Allowance for NPDES Permit Fee	LS	1		
<b>Total Bid Price</b>					

I/we agree to furnish at the prices shown and guarantee that each offered will meet or exceed all specifications, terms and conditions, and requirements listed. This is the total price and includes all charges to the City of Foley. I herein affirm that I have not been in any agreement or collusion among bidders in restraint of competition to bid at a fixed price or to refrain from bidding otherwise.

\_\_\_\_\_  
Name of Bidder

\_\_\_\_\_  
Address

\_\_\_\_\_  
Telephone/Fax Number

\_\_\_\_\_  
Email address

Corporate Seal

\_\_\_\_\_  
Al. Contractor License No. (if applicable)

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title



**PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS: That we \_\_\_\_\_

\_\_\_\_\_ and \_\_\_\_\_  
(hereinafter called the Principal) (the Surety)

are held and firmly bound unto The City of Foley and/or its assigns in the penal sum of

\_\_\_\_\_

(\$ \_\_\_\_\_ ) for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrator, successors, and assigns jointly and severally for the faithful performance of a certain written Contract dated the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, entered into between the Principal and the Owner for **Bon Secour River Constructed Wetlands**, a copy of which Contract is incorporated herein by reference and is made a part hereof as if fully copied herein.

NOW, THEREFORE, the condition of this obligation is such that if the Principal shall faithfully perform the terms, undertakings, covenants, agreements, and conditions of the contract in all respects on his part, and shall fully pay all obligation incurred in connection with the performance of such Contract on account of labor and materials used in connection therewith and all such other obligations of every form, nature, and character, and shall save harmless the Owner from all cost and damage which may be suffered by reason of the failure to fully and completely perform said Contract and shall reimburse and repay the Owner for all expenditures of every kind, character, and description which may be incurred by the Owner in making good any and every default which may exist on the part of the Principal in connection with the performance of said Contract and further that the Principal shall pay all lawful claims of all persons, firms, partnerships, or corporations for all labor performed and material furnished in connection with the performance of the Contract, and that the failure to do so with such persons, firms, partnerships, or corporations shall give them a direct right of action against the Principal and Surety under this obligation; and provided, however, that no suit, action, or proceedings by reason of any default whatever shall be brought on this Bond after one year from the date on which the final payment on the contract falls due, and provided further that if any alterations or additions which may be made under the Contract, or in the work to be done under it, or the giving by the Owner of any extension of time for the performance of the Contract or any other forbearance on the part of either the Owner or the Principal shall not, in any way, release the Principal and Surety or either of them, their heirs, executors, administrators, successors, or assigns from their liability hereunder, notice to the Surety of any such alterations, extension, or forbearance being expressly waived. This obligation shall remain in full force and effect until the performance of all covenants, terms, and conditions herein stipulated and after such performance this obligation shall become void.

IN TESTIMONY WHEREOF, witness the hands and seal of the parties hereto on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

Bon Secour River  
Constructed Wetlands

Executed in two (2) counterparts.

Witness:

\_\_\_\_\_  
\_\_\_\_\_

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

\_\_\_\_\_  
\_\_\_\_\_

Countersigned:

\_\_\_\_\_  
(Resident Agent)

BONDING COMPANY:

\_\_\_\_\_

ADDRESS:

\_\_\_\_\_

\_\_\_\_\_  
COMPANY

\_\_\_\_\_  
ADDRESS

**LABOR AND MATERIAL BOND**

KNOW ALL MEN BY THESE PRESENTS: That we, \_\_\_\_\_

\_\_\_\_\_, as Principal, and \_\_\_\_\_

\_\_\_\_\_, as Surety, are held and firmly bound unto The City of Foley and/or its assigns (hereinafter called the Owner), in the penal sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

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

WHEREAS, said Principal has entered into a certain contract with said Owner, dated \_\_\_\_\_ (hereinafter called the Contract) for the – **Bon Secour River Constructed Wetlands**, for which Contract and the Plans and Specifications for said work shall be deemed a part hereof as fully as if set out herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH that if said Principal and all subcontractors to whom any portion of work provided for in said contract is sublet and all assignees of said Principal and of such subcontractors shall promptly make payments to all persons supplying him or them with labor, materials, equipment, or supplies for or in the prosecution of the work provided for in such contract, or in any amendment or extension of or additions to said Contract noticed which modifications to the Surety being hereby waived and for the payment of reasonable attorney's fees, incurred by the claimant or claimants in suits on said Bond, then the above obligation shall be void, otherwise to remain in full force and effect, PROVIDED, however that this Bond is subject to the following conditions and limitations.

a. Any person, firm, or corporation that has furnished labor, materials, equipment, or supplies for or in the prosecution of the work provided for in said Contract shall have a direct right of action against the Principal and Surety on this Bond, which right of action shall be asserted in a proceeding, instituted in the county in which the work provided for in said Contract is to be performed, or in any county in which said Principal or Surety does business. Such right of action shall be asserted in a proceeding instituted in the name of the claimant or claimants for his or their use and benefit against said Surety or either of them (but not later than one year after the final settlement of said Contract) in which action such claim or claims shall be adjudicated and judgment rendered thereon.

b. The principal and Surety hereby designate and appoint \_\_\_\_\_

\_\_\_\_\_  
(To be filled in by Surety Company)

as the agent of each of them to receive and accept service of process other pleading issued or filed in any proceeding instituted on this Bond and hereby consent that such service shall be the same as personal service on the Principal and/or Surety.

c. The Surety shall not be liable hereunder for damage or compensation recoverable under any Workman's Compensation or Employer's Liability Statute.

d. In no event shall the Surety be liable for a greater sum than the penalty of this Bond, or subject to any suit, action, or proceeding thereon that is instituted later than one year after the final settlement of said Contract.

e. This Bond is given pursuant to the terms of Act No. 39, General Laws of Alabama, approved February 8, 1935, entitled "An Act to Further Provide for Bonds of Contractors on State and Other Public Works and Suits Thereon".

Executed in two (2) counterparts.

SIGNED, SEALED, AND DELIVERED THIS \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_.

Witness:

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

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Countersigned:

\_\_\_\_\_  
(Resident Agent)

BONDING COMPANY:

\_\_\_\_\_

ADDRESS:

\_\_\_\_\_

\_\_\_\_\_  
COMPANY

\_\_\_\_\_  
ADDRESS

**NOTICE OF AWARD**

DATED:

TO:

PROJECT: – **Bon Secour River Constructed Wetlands.**

You have been awarded a contract for **Bon Secour River Constructed Wetlands**. This award is contingent upon successful felony background check results.

Please **complete the attached background check authorization form in Appendix A** and return it to Rachel Keith via email ([rkeith@cityoffoley.org](mailto:rkeith@cityoffoley.org)) as soon as possible. Within ten (10) days of receiving notice of successful background check results, you must deliver to the OWNER the enclosed contract documents, fully executed, signed and witnessed, and a Certificate of Insurance as follows:

- 2 originals - Contract
- 1 original - Performance Bond
- 1 original - Labor and Material Bond
- 1 original - Certificate of Insurance certifying compliance with all insurance requirements specified in the General Conditions

Within ten (10) days after receipt of the above documents, OWNER will return to you one (1) fully signed original of the Contract.

You will be notified of the time and place for a preconstruction conference; your proposed work schedule must be delivered to the City at that time.

Failure to deliver the aforementioned contract documents and insurance certificate within the time specified will entitle OWNER to consider your bid abandoned, to annul this Notice of Award, and to declare your Bid Security forfeited.

**CITY OF FOLEY (OWNER)**

By: \_\_\_\_\_  
Rachel Keith  
Project & Risk Manager

**CONTRACT**

THIS AGREEMENT, made and entered into the \_\_\_\_ day of \_\_\_\_\_, 20\_\_, at Foley, State of Alabama, by and between \_\_\_\_\_, hereinafter called the Contractor, and the **City of Foley, Alabama**, and/or its assigns, hereinafter called the Owner.

WITNESSETH;

That the Contractor, for the consideration hereinafter set out, hereby agrees with the Owner as follows:

1. That the Contractor shall perform all of the work in a satisfactory manner in accordance with the plans and specifications, Bid requirements and conditions, which are attached hereto and made a part hereof as if fully contained herein, for – **Bon Secour River Constructed Wetlands**.

2. That the Contractor shall commence the work to be performed under this agreement within the Contract Time as defined in the *General Conditions*.

All work shall be accomplished with quality in a manner which will maintain safety to life and property, and reduce to a minimum any interference with abutting property or public travel. All work shall be inspected and approved by the City Public Works Construction Manager and his staff as Owner's representatives before payment shall be made.

3. The Owner hereby agrees to pay to the Contractor for satisfactory performance of the agreement, subject to additions and deductions as provided in the contractual Documents, in lawful money of the United States as follows: \_\_\_\_\_

4. Estimates of work completed shall be made by the Contractor each month and submitted to the Owner. Within thirty (30) calendar days after submittal by the Contractor, the owner shall make partial payments to the Contractor on the basis of the estimate of work, duly certified and approved by the City Construction Manager, and performed during the preceding calendar month by the Contractor.

5. Upon substantial completion and inspection of all work covered by this agreement, payment of the Contract sum shall be made within thirty (30) calendar days, less retainage.

Said retainage shall be retained until: 1) Submission by the Contractor of evidence satisfactory to the Owner that all payrolls, material bills, and other costs incurred by the Contractor in connection with the construction of the work have been paid in full including a Waiver and Release of Lien on the form included in the Contract Documents; 2) Legal notice of advertisement of completion has been advertised four (4) consecutive weeks in some newspaper of general circulation in Baldwin County, Alabama, as approved by the Owner; 3) Final inspection by the City Construction Manager and final acceptance of the work by the Owner.

6. It is mutually agreed between the Owner and the Contractor that timely performance is of the essence to this Contract, and the Contractor agrees to keep a working force on the job of the size that is adequate to perform all work in accordance with the Contractor's approved work schedule.
7. The Contractor hereby agrees to warrant that all material and workmanship is of the quality, quantity, and character specified and shown, and that any faulty materials or workmanship made known to him within one (1) year after date of final certificate of payment shall be made good by him without additional expense to the Owner.
8. Failure to complete the work within the allotted Contract time will cause loss to the Owner in administrative, engineering, inspection, interest, and supervision charges. Therefore, any overrun in the Contract time, which in the opinion of the City Contract Manager is caused by undue delay, shall be charged to the Contractor per section C-700 and as described in the Instructions to Bidders.
9. The contractor shall perform maintenance of the project in accordance with the plans and specifications for a period of twenty-four (24) months from the date of final acceptance. The contractor shall submit with his final application for Pay a maintenance bond for twenty-five percent (25%) of the contract amount. The maintenance bond shall be in effect for the entirety of the maintenance period.
10. The Owner reserves the right to terminate the contract upon written notice to the Contractor at least ten (10) days prior to said termination. In the event that the Contract is terminated, the Contractor will be compensated in accordance with the bid items of the Contract and its attachment for all approved work in place.
11. By signing this contract, the Contractor represents and agrees that it is not currently engaged in, nor will it engage in, any boycott of a person or entity based in or doing business with a jurisdiction with which the State of Alabama can enjoy open trade.

IN WITNESS WHEREOF, the parties hereto have executed this agreement on the day and date first above written in two (2) counterparts, each of which shall, without proof or accounting for the other counterpart, be deemed an original contract.

(Corporate Seal) \_\_\_\_\_ **(Contractor)**

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

Its \_\_\_\_\_

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

Its \_\_\_\_\_

(Seal) **City of Foley, Alabama (Owner)**

By: \_\_\_\_\_  
 Honorable Ralph Hellmich , Mayor

Attest: \_\_\_\_\_  
Kathryn Taylor, City Clerk

**NOTICE TO PROCEED**

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

PROJECT: **Bon Secour River Constructed Wetlands**

You are hereby notified to commence work in accordance with the Agreement dated \_\_\_\_\_, 20\_\_, on or before \_\_\_\_\_, 20\_\_. You are to complete the work within three hundred sixty (360) consecutive calendar days, or by \_\_\_\_\_, 20\_\_.

**City of Foley, Alabama (OWNER)**

By \_\_\_\_\_

**ACCEPTANCE OF NOTICE**

Receipt of the above NOTICE TO PROCEED is hereby acknowledged this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

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

**WAIVER AND RELEASE OF LIEN**

FROM:

TO:               **City of Foley, Alabama** (Owner of Project)

PROJECT NAME: **Bon Secour River Constructed Wetlands**

KNOW ALL MEN BY THESE PRESENTS:

1.       The undersigned, having been employed by the **City of Foley** to furnish labor and/or materials for the referenced project, does hereby waive and release any and all lien and claim or right to lien and claim against the **City of Foley** on the referenced project on account of labor, services, equipment, materials, etc. furnished for the referenced project.
  
2.       The undersigned further certifies that to the best of his knowledge and belief, there are no unsatisfied or outstanding claims of any character arising out of the furnishing of labor, equipment, services, and/or materials for the referenced project.
  
3.       The undersigned further agree that, after execution of this document, it will indemnify, defend at its expense, and save the **City of Foley** harmless from any and all claims or liens arising out of the undersigned's furnishing of labor, equipment, services, and/or materials for the referenced project.
  
4.       The undersigned has executed this document in order to induce the **City of Foley** to make final payment to and in no way acts as a release of any claim the undersigned may have against parties other than the **City of Foley** arising out of the furnishing of labor and/or materials for the referenced project.

IN WITNESS WHEREOF, the undersigned has signed and sealed this instrument this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

STATE OF ALABAMA  
COUNTY OF BALDWIN

Personally appeared before me the undersigned Notary Public in and for said County and State, \_\_\_\_\_, who is known to me and who, after being duly sworn, deposes and says that the facts stated in the above affidavit are true.

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

## GENERAL CONDITIONS

### 1. OWNER

The Owner for – **Bon Secour River Constructed Wetlands** is the City of Foley, Alabama. The mailing address for the Owner is Post Office Box 1750, Foley, Alabama 36535.

### 2. LOCAL LICENSE REQUIREMENT

Attention is called to the fact that all companies performing work on this Contract must obtain a Business License from the City of Foley available at City Hall.

### 3. CONTRACT DOCUMENTS

The Owner will furnish the Contractor free of charge one (1) set of plans and specifications. Additional sets may be purchased at cost to Contractor.

### 4. PAYMENTS AND COMPLETION

Once in each month, the Contractor may submit an Application for Payment for completed work in place on the enclosed form. Payment, less retainage, shall be made to the Contractor within thirty (30) days of receipt and approval of Application for Payment.

The final monthly payment prior to the expiration of the Contract shall not be made until: 1) Submission by the Contractor of evidence satisfactory to the Owner that all payrolls, material bills, and other costs incurred by the Contractor in connection with the work under this contract have been paid in full including a Waiver and Release of Lien on the form included in the Contract Documents; 2) FOR CONTRACTS OF \$50,000 OR MORE, legal notice of advertisement of completion has been advertised four (4) consecutive weeks in some newspaper of general circulation in Baldwin County, Alabama (approved by the Owner); 3) Final inspection and acceptance of the work by the Owner. Final payment will be made to Contractor within thirty (30) days after satisfactory completion of (1), (2) and (3) above.

### 5. INSURANCE REQUIREMENTS

Contractor agrees, at its sole expense, to maintain on a primary and non-contributory basis during the life of this Contract, or the performance of Work hereunder, insurance coverages, limits, and endorsements as set out below. Contractor agrees to obtain Commercial General Liability, Business Auto Liability, Worker's Compensation, and Commercial Umbrella/Excess Liability before starting the work. Contractor also agrees to undertake the obligation to insure that all subcontractors abide by these same insurance requirements.

The Contractor agrees the insurance requirements herein as well as City's review or acknowledgment is not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by the Contractor under this Contract. A copy of the policy shall be provided upon request.

***Commercial General Liability***

Contractor agrees to maintain Commercial General Liability at a limit of liability not less than \$1,000,000 Each Occurrence, \$2,000,000 Annual Aggregate. Contractor agrees its coverage will not contain any restrictive endorsement(s) excluding or limiting Product/Completed Operations, Independent Contractors, X-C-U Coverage, Contractual Liability, Personal Injury and Advertising Injury, Independent Contractors, or Cross Liability.

***Business Automobile Liability***

Contractor agrees to maintain Business Automobile Liability at a limit of liability not less than \$1,000,000 Each Occurrence. Coverage shall include liability for Owned, Non-Owned, and Hired Automobiles.

***Worker's Compensation & Employer's Liability***

Regardless of any "minimum requirements" of the State of Alabama, Contractor shall obtain Worker's Compensation insurance covering **all** workers involved in the Work. (Note: Elective exemptions or coverage through an employee leasing arrangement will violate this requirement.) Subcontractor shall also obtain Employer's Liability insurance with minimum limits of \$1,000,000 Each Accident, \$1,000,000 Disease Policy Limit, and \$1,000,000 Each Employee.

***Commercial Umbrella/Excess Liability***

Contractor agrees to maintain either a Commercial Umbrella or Excess Liability at a limit of liability not less than \$5,000,000 Each Occurrence, \$5,000,000 Aggregate. The Contractor agrees to endorse the City as an "Additional Insured" on the Commercial Umbrella/Excess Liability, unless the Commercial Umbrella/Excess Liability provides coverage on a pure/true follow-form basis, or the City is automatically defined as an Additional Protected Person.

***Additional Insured Endorsements***

The Contractor agrees to endorse the City as an Additional Insured on the Commercial General Liability with the following Additional Insured endorsement, or similar endorsement providing equal or broader Additional Insured coverage:

- CG2010 10 01 – Additional Insured; Owners, Lessees, or Contractors,
- CG2010 07 04 – Additional Insured; Owners, Lessees, or Contractors; Scheduled Person or Organization endorsement in combination with the additional endorsement of CG2037 10 01 – Additional Insured; Owners, Lessees, or Contractors

Completed Operations shall be required to provide back coverage for the Contractor's "your work" as defined in the policy and liability arising out of the products-completed operations hazard. (Attach an actual copy of the endorsement(s) – Contact your insurance agent.) The name of the organization endorsed as Additional Insured for all endorsement shall read "City of Foley."

***Deductibles, Coinsurance Penalties & Self-Insured-Retention***

Contractor agrees to be fully and solely responsible for any deductible, coinsurance penalty, or self-insured retention expenses; including any loss not covered because of coinsurance penalty, or coverage exclusion or limitation. The Contractor agrees any Self-Insured-Retention or deductible shall not exceed \$25,000. For deductible amounts that exceed this amount, the Contract agrees, when requested by City, to maintain a Commercial Surety Bond in an amount equal to said deductible amount.

***Waiver of Subrogation***

Contractor agrees by entering into this written Contract to a Waiver of Subrogation in favor of the City. If a policy prohibits waiving subrogation rights without an endorsement, the Contractor agrees to endorse it with a Waiver of Transfer of Rights of Recovery Against Others, or an equivalent endorsement. This Waiver of Subrogation requirement shall not apply to any policy which voids coverage if subrogation is waived.

***Right to Revise or Reject***

The City reserves the right to revise any insurance requirement based on insurance market conditions affecting the availability or affordability of coverage; or changes in the scope of work/specifications affecting the applicability of coverage. Additionally, the City reserves the right, but not the obligation, to review and reject and insurance policies failing to meet the criteria stated herein, or any insurer(s) providing coverage, due to its poor financial condition or failure to operate legally in the State of Alabama. In such events, City shall provide Contractor written notice of such revisions or rejections.

***Certificate of Insurance***

Contractor agrees to provide City a Certificate of Insurance evidencing the above coverages. If the Contractor receives a non-renewal or cancellation or other material change notice from an insurance carrier affording coverage required herein, Contractor agrees to notify the City immediately with specifics as to which coverage is no longer in compliance. The City shall have the right, but not the obligation, of prohibiting Contractor from entering the Work site until a new Certificate of Insurance is provided to the City evidencing the replacement coverage. The Contractor agrees the City reserves the right to withhold payment to Contractor until evidence of reinstated or replacement coverage is provided to the City. If the Contractor fails to maintain the insurance as set forth herein, the Contractor agrees the City shall have the right, but not the obligation, to purchase replacement insurance, which the Contractor agrees to reimburse any premiums or expenses incurred by the City.

The Contractor agrees the Certificate(s) of Insurance shall:

1. Clearly indicate the City has been endorsed on the Commercial Umbrella/Excess Liability, and Commercial General Liability policy as an Additional Insured. Clearly indicate the project name and project number.
2. Clearly indicated Certificate Holder(s) as follows:

Original to: City of Foley, Alabama  
Attn: Purchasing Officer  
P.O. Box 1750  
Foley, AL 36535

**6. WORK SCHEDULE**

After contract award, the contractor shall coordinate his or her work schedule with the Environmental Manager. Any modifications to the established work schedule shall be first approved by the Environmental Manager.

**7. COMPLETION DATE**

- A. Project Duration and Completion Date shall be as stipulated in the Notice to Proceed.
- B. The completion date shall not be extended except for unavoidable delays caused by, but not limited to, fires, floods, storms, strikes, accidents, or other circumstances beyond the Contractor's control. The Contractor may only request additional completion time within one week from the occurrence of the delay. The Construction Manager shall be the sole judge of such "unavoidable delays", and the extent thereof.

In the event that such a determination is made, the date of completion shall be extended by a length of time equal to that lost by such circumstances. The Owner shall not be liable to the Contractor for any damages or additional compensation as a consequence of delay, hindrance, interference or other similar event, caused by Owner; or by reason of fire, casualty, act of God or any other reason beyond the Owner's control.

## **8. CLAIMS**

A "Claim" is a Contractor's demand or assertion seeking, as a matter of right, an increase in Contract Amount, an extension in the time for performance of the Contractor's Work, or relief with respect to the terms of the Contract Documents. All Claims must be made by written notice to the Owner at least one (1) week prior to the beginning of the Contractor's affected or additional work, or within one (1) week of the Subcontractor's first knowledge of the event, whichever shall first occur, otherwise, such claims shall be deemed waived.

Pending final resolution of a Claim or any other dispute between Contractor and Owner, unless otherwise agreed in writing, the Contractor shall proceed diligently with performance of the Contractor's Work, disputed or otherwise, and without interruption, deficiency, or delay.

## **9. TERMINATION FOR CAUSE**

In the event that any of the provisions of this Contract are violated by the Contractor, or by any of his Subcontractors, the Owner may serve written notice upon the Contractor and Surety of its intention to terminate the Contract, such notices to contain the reasons for such intention to terminate the Contract, and unless within ten (10) days after the serving of such notice upon the Contractor, such violation or delay shall cease and satisfactory arrangement of correction be made, the Contract shall, upon the expiration of said ten (10) days, cease and terminate. In the event of any such termination, the Owner shall immediately serve notice thereof upon the Surety and the Contractor and the Surety shall have the right to take over and perform the Contract; provided, however, that if the Surety does not commence performance thereof within ten (10) days from the date of the mailing to such Surety of notice of termination, the Owner may take over the work and prosecute the same to completion by contract or by force account for the account and at the expense of the Contractor and the Contractor and his Surety shall be liable to the Owner for any excess cost occasioned by the Owner thereby, and in such event the Owner may take possession of and utilize in completing the work, such materials, appliances and plant as may be on the site of the work and necessary therefore.

## **10. TERMINATION FOR CONVENIENCE**

The Owner may terminate this contract at any time by giving at least ten (10) days' notice in writing to the Contractor. If the contract is terminated by the Owner as provided herein, the Contractor will be paid for the time provided and expenses incurred up to the termination date.

**11. SANITARY FACILITIES**

The Contractor shall provide on-site sanitary facilities, if he so deems sanitary facilities to be necessary. No sanitary facilities shall be provided by the Owner.

**12. STORAGE OF MATERIALS**

All equipment and materials may be stored within the City at a location(s) approved by the Owner. No payments will be made for offsite stored materials unless approved in advance by the Owner.

**13. DISPOSAL OF MATERIALS**

Any waste and excess materials shall be disposed of by the Contractor in a safe manner conforming to all Federal and State Occupational and Environmental Laws and Regulations including, but not limited to, the Occupational Safety and Health Act (OSHA), the Clean Air Act (CAA), the Clean Water Act (CWA), the Safe Drinking Water Act (SDWA), the Toxic Substances Control Act (TSCA), and Alabama Department of Environmental Management (ADEM) Regulations.

**14. DRAWINGS AND CONTRACTUAL DOCUMENTS**

The Contractual Documents shall consist of the Request for Proposals, Instructions for Bidders, Proposal, Proposal Forms, Contract, General Conditions, and Special Conditions, Technical Specifications (Alabama Department of Transportation Standard Specifications for Highway Construction, Current Edition), all amendments and addenda thereto, and Drawings attached hereto.

**15. BACKGROUND CHECK**

The bid award of “Public Works” projects over \$50,000 will be contingent upon the results of a background check of the successful low bidder as stated in Ordinance No. 1029-08. According to this ordinance, the City of Foley will take criminal histories into account when deciding whether a low bidder is qualified to do work for the City. Prior to project award a contractor shall complete and submit the Business Transaction Authorization form provided in Appendix A as directed in the Notice of Award. The aforementioned authorization shall only be required to be submitted upon receipt of a notice of award and does not need to be included in the bid package.

## **APPENDIX A**

### **Bon Secour River Constructed Wetlands**

E-Verify and Background Check Requirements



## THE E-VERIFY PROGRAM FOR EMPLOYMENT VERIFICATION MEMORANDUM OF UNDERSTANDING FOR EMPLOYERS USING A E-VERIFY EMPLOYER AGENT

### ARTICLE I

#### PURPOSE AND AUTHORITY

This Memorandum of Understanding (MOU) sets forth the points of agreement between the Department of Homeland Security (DHS), \_\_\_\_\_ (Employer), and \_\_\_\_\_ (E-Verify Employer Agent) regarding the Employer's and E-Verify Employer Agent's participation in the Employment Eligibility Verification Program (E-Verify). This MOU explains certain features of the E-Verify program and enumerates specific responsibilities of DHS, the Social Security Administration (SSA), the Employer, and the E-Verify Employer Agent. References to the Employer include the E-Verify Employer Agent when acting on behalf of the Employer. E-Verify is a program that electronically confirms an employee's eligibility to work in the United States after completion of the Employment Eligibility Verification Form (Form I-9). For covered government contractors, E-Verify is used to verify the employment eligibility of all newly hired employees and all existing employees assigned to Federal contracts or to verify the entire workforce if the contractor so chooses.

Authority for the E-Verify program is found in Title IV, Subtitle A, of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA), Pub. L. 104-208, 110 Stat. 3009, as amended (8 U.S.C. § 1324a note). Authority for use of the E-Verify program by Federal contractors and subcontractors covered by the terms of Subpart 22.18, "Employment Eligibility Verification", of the Federal Acquisition Regulation (FAR) (hereinafter referred to in this MOU as a "Federal contractor with the FAR E-Verify clause") to verify the employment eligibility of certain employees working on Federal contracts is also found in Subpart 22.18 and in Executive Order 12989, as amended.

### ARTICLE II

#### FUNCTIONS TO BE PERFORMED

##### A. RESPONSIBILITIES OF SSA

1. SSA agrees to provide the Employer (through the E-Verify Employer Agent) with available information that will allow the Employer to confirm the accuracy of Social Security Numbers provided by all employees verified under this MOU and the employment authorization of U.S. citizens.
2. SSA agrees to provide the Employer and E-Verify Employer Agent appropriate assistance with operational problems that may arise during the Employer's participation in E-Verify. SSA agrees to provide the E-Verify Employer Agent with names, titles, addresses, and telephone numbers of SSA representatives to be contacted during the E-Verify process.
3. SSA agrees to safeguard the information provided by the Employer through the E-Verify program procedures, and to limit access to such information, as appropriate by law, to individuals responsible for the verification of Social Security Numbers and for

evaluation of E-Verify or such other persons or entities who may be authorized by SSA as governed by the Privacy Act (5 U.S.C. § 552a), the Social Security Act (42 U.S.C. 1306(a)), and SSA regulations (20 CFR Part 401).

4. SSA agrees to provide a means of automated verification that is designed (in conjunction with DHS's automated system if necessary) to provide confirmation or tentative nonconfirmation of U.S. citizens' employment eligibility within 3 Federal Government work days of the initial inquiry.

5. SSA agrees to provide a means of secondary verification (including updating SSA records as may be necessary) for employees who contest SSA tentative nonconfirmations that is designed to provide final confirmation or nonconfirmation of U.S. citizens' employment eligibility and accuracy of SSA records for both citizens and non-citizens within 10 Federal Government work days of the date of referral to SSA, unless SSA determines that more than 10 days may be necessary. In such cases, SSA will provide additional verification instructions.

## **B. RESPONSIBILITIES OF DHS**

1. After SSA verifies the accuracy of SSA records for employees through E-Verify, DHS agrees to provide the Employer (through the E-Verify Employer Agent) access to selected data from DHS's database to enable the Employer (through the E-Verify Employer Agent) to conduct, to the extent authorized by this MOU:

- Automated verification checks on employees by electronic means, and
- Photo verification checks (when available) on employees.

2. DHS agrees to provide to the Employer and E-Verify Employer Agent appropriate assistance with operational problems that may arise during the Employer's participation in E-Verify. DHS agrees to provide the E-Verify Employer Agent names, titles, addresses, and telephone numbers of DHS representatives to be contacted during the E-Verify process.

3. DHS agrees to make available to the Employer (through the E-Verify Employer Agent), at the E-Verify Web site and on the E-Verify Web browser, instructional materials on E-Verify policies, procedures and requirements for both SSA and DHS, including restrictions on the use of E-Verify. DHS agrees to provide training materials on E-Verify.

4. DHS agrees to provide to the Employer (through the E-Verify Employer Agent) a notice, which indicates the Employer's participation in the E-Verify program. DHS also agrees to provide to the Employer (through the E-Verify Employer Agent) anti-discrimination notices issued by the Office of Special Counsel for Immigration-Related Unfair Employment Practices (OSC), Civil Rights Division, U.S. Department of Justice.

5. DHS agrees to issue the E-Verify Employer Agent a user identification number and password that will be used exclusively by the E-Verify Employer Agent, on behalf of the Employer, to verify information provided by employees with DHS's databases.

6. DHS agrees to safeguard the information provided to DHS by the Employer (through the E-Verify Employer Agent), and to limit access to such information to individuals responsible for the verification of employees' employment eligibility and for evaluation of the E-Verify program, or to such other persons or entities as may be authorized by applicable law. Information will be used only to verify the accuracy of Social Security Numbers and employment eligibility, to enforce the Immigration and Nationality Act (INA) and Federal criminal laws, and to administer Federal contracting requirements.

7. DHS agrees to provide a means of automated verification that is designed (in conjunction with SSA verification procedures) to provide confirmation or tentative nonconfirmation of employees' employment eligibility within 3 Federal Government workdays of the initial inquiry.

8. DHS agrees to provide a means of secondary verification (including updating DHS records as may be necessary) for employees who contest DHS tentative nonconfirmations and photo non-match tentative nonconfirmations that is designed to provide final confirmation or nonconfirmation of the employees' employment eligibility within 10 Federal Government work days of the date of referral to DHS, unless DHS determines that more than 10 days may be necessary. In such cases, DHS will provide additional verification instructions.

### **C. RESPONSIBILITIES OF THE EMPLOYER**

1. The Employer agrees to display the notices supplied by DHS (through the E-Verify Employer Agent) in a prominent place that is clearly visible to prospective employees and all employees who are to be verified through the system.
2. The Employer agrees to provide to the SSA and DHS the names, titles, addresses, and telephone numbers of the Employer representatives to be contacted regarding E-Verify.
3. The Employer agrees to become familiar with and comply with the most recent version of the E-Verify User Manual. The Employer will obtain the E-Verify User Manual from the E-Verify Employer Agent.
4. The Employer agrees to comply with current Form I-9 procedures, with two exceptions:
  - If an employee presents a "List B" identity document, the Employer agrees to only accept "List B" documents that contain a photo. (List B documents identified in 8 C.F.R. § 274a.2(b)(1)(B)) can be presented during the Form I-9 process to establish identity.) If an employee objects to the photo requirement for religious reasons, the Employer should contact E-Verify at 1-888-464-4218.
  - If an employee presents a DHS Form I-551 (Permanent Resident Card) or Form I-766 (Employment Authorization Document) to complete the Form I-9, the Employer agrees to make a photocopy of the document and to retain the photocopy with the employee's Form I-9. The photocopy must be of sufficient quality to allow for verification of the photo and written information. The employer will use the photocopy to verify the photo and to assist DHS with its review of photo non-matches that are contested by employees. Note that employees

retain the right to present any List A, or List B and List C, documentation to complete the Form I-9. DHS may in the future designate other documents that activate the photo screening tool.

5. The Employer understands that participation in E-Verify does not exempt the Employer from the responsibility to complete, retain, and make available for inspection Forms I-9 that relate to its employees, or from other requirements of applicable regulations or laws, including the obligation to comply with the antidiscrimination requirements of section 274B of the INA with respect to Form I-9 procedures, except for the following modified requirements applicable by reason of the Employer's participation in E-Verify: (1) identity documents must have photos, as described in paragraph 4 above; (2) a rebuttable presumption is established that the Employer has not violated section 274A(a)(1)(A) of the Immigration and Nationality Act (INA) with respect to the hiring of any individual if it obtains confirmation of the identity and employment eligibility of the individual in good faith compliance with the terms and conditions of E-Verify; (3) the Employer must notify DHS if it continues to employ any employee after receiving a final nonconfirmation, and is subject to a civil money penalty between \$550 and \$1,100 for each failure to notify DHS of continued employment following a final nonconfirmation; (4) the Employer is subject to a rebuttable presumption that it has knowingly employed an unauthorized alien in violation of section 274A(a)(1)(A) if the Employer continues to employ an employee after receiving a final nonconfirmation; and (5) no person or entity participating in E-Verify is civilly or criminally liable under any law for any action taken in good faith based on information provided through the confirmation system. DHS reserves the right to conduct Form I-9 and E-Verify system compliance inspections during the course of E-Verify, as well as to conduct any other enforcement activity authorized by law.
6. The Employer agrees to initiate E-Verify verification procedures (through the E-Verify Employer Agent), for new employees within 3 Employer business days after each employee has been hired (but after both sections 1 and 2 of the Form I-9 have been completed), and to complete as many (but only as many) steps of the E-Verify process as are necessary according to the E-Verify User Manual, or in the case of Federal contractors with the FAR E-Verify clause, the E-Verify User Manual for Federal Contractors. The Employer is prohibited from initiating verification procedures before the employee has been hired and the Form I-9 completed. If the automated system to be queried is temporarily unavailable, the 3-day time period is extended until it is again operational in order to accommodate the Employer's attempting, in good faith, to make inquiries during the period of unavailability. Employers may initiate verification, through the E-Verify Employer Agent, by notating the Form I-9 in circumstances where the employee has applied for a Social Security Number (SSN) from the SSA and is waiting to receive the SSN, provided that the Employer (through the E-Verify Employer Agent) performs an E-Verify employment verification query using the employee's SSN as soon as the SSN becomes available.
7. The Employer agrees not to use E-Verify procedures for pre-employment screening of job applicants, in support of any unlawful employment practice, or for any other use not authorized by this MOU. Employers must use E-Verify (through its E-Verify Employer Agent) for all new employees, unless an Employer is a Federal contractor that qualifies for the exceptions described in Article II.D.1.c. Except as provided in

- Article II.D, the Employer will not verify selectively and will not verify employees hired before the effective date of this MOU. The Employer understands that if the Employer uses the E-Verify system for any purpose other than as authorized by this MOU, the Employer may be subject to appropriate legal action and termination of its access to SSA and DHS information pursuant to this MOU.
8. The Employer (through its E-Verify Employer Agent) agrees to follow appropriate procedures (see Article III. below) regarding tentative nonconfirmations, including notifying employees in private of the finding and providing them written notice of the findings, providing written referral instructions to employees, allowing employees to contest the finding, and not taking adverse action against employees if they choose to contest the finding. Further, when employees contest a tentative nonconfirmation based upon a photo non-match, the Employer is required to take affirmative steps (see Article III.B. below) to contact DHS with information necessary to resolve the challenge.
  9. The Employer agrees not to take any adverse action against an employee based upon the employee's perceived employment eligibility status while SSA or DHS is processing the verification request unless the Employer obtains knowledge (as defined in 8 C.F.R. § 274a.1(l)) that the employee is not work authorized. The Employer understands that an initial inability of the SSA or DHS automated verification system to verify work authorization, a tentative nonconfirmation, a case in continuance (indicating the need for additional time for the government to resolve a case), or the finding of a photo non-match, does not establish, and should not be interpreted as evidence, that the employee is not work authorized. In any of the cases listed above, the employee must be provided a full and fair opportunity to contest the finding, and if he or she does so, the employee may not be terminated or suffer any adverse employment consequences based upon the employee's perceived employment eligibility status (including denying, reducing, or extending work hours, delaying or preventing training, requiring an employee to work in poorer conditions, refusing to assign the employee to a Federal contract or other assignment, or otherwise subjecting an employee to any assumption that he or she is unauthorized to work, or otherwise mistreating an employee) until and unless secondary verification by SSA or DHS has been completed and a final nonconfirmation has been issued. If the employee does not choose to contest a tentative nonconfirmation or a photo non-match or if a secondary verification is completed and a final nonconfirmation is issued, then the Employer can find the employee is not work authorized and terminate the employee's employment. Employers or employees with questions about a final nonconfirmation may call E-Verify at 1-888-464-4218 or OSC at 1-800-255-8155 or 1-800-237-2515 (TDD).
  10. The Employer agrees to comply with Title VII of the Civil Rights Act of 1964 and section 274B of the INA, as applicable, by not discriminating unlawfully against any individual in hiring, firing, or recruitment or referral practices because of his or her national origin or, in the case of a protected individual as defined in section 274B(a)(3) of the INA, because of his or her citizenship status. The Employer understands that such illegal practices can include selective verification or use of E-Verify except as provided in part D below, or discharging or refusing to hire employees because they appear or sound "foreign" or have received tentative nonconfirmations. The Employer further understands that any violation of the unfair

immigration-related employment practices provisions in section 274B of the INA could subject the Employer to civil penalties, back pay awards, and other sanctions, and violations of Title VII could subject the Employer to back pay awards, compensatory and punitive damages. Violations of either section 274B of the INA or Title VII may also lead to the termination of its participation in E-Verify. If the Employer has any questions relating to the anti-discrimination provision, it should contact OSC at 1-800-255-8155 or 1-800-237-2515 (TDD).

11. The Employer agrees to record the case verification number on the employee's Form I-9 or to print the screen containing the case verification number and attach it to the employee's Form I-9.
12. The Employer agrees that it will use the information it receives from SSA or DHS (through the E-Verify Employer Agent) pursuant to E-Verify and this MOU only to confirm the employment eligibility of employees as authorized by this MOU. The Employer agrees that it will safeguard this information, and means of access to it (such as PINS and passwords) to ensure that it is not used for any other purpose and as necessary to protect its confidentiality, including ensuring that it is not disseminated to any person other than employees of the Employer who are authorized to perform the Employer's responsibilities under this MOU, except for such dissemination as may be authorized in advance by SSA or DHS for legitimate purposes.
13. The Employer acknowledges that the information which it receives through the E-Verify Employer Agent from SSA is governed by the Privacy Act (5 U.S.C. § 552a(i)(1) and (3)) and the Social Security Act (42 U.S.C. 1306(a)), and that any person who obtains this information under false pretenses or uses it for any purpose other than as provided for in this MOU may be subject to criminal penalties.
14. The Employer agrees to cooperate with DHS and SSA in their compliance monitoring and evaluation of E-Verify, including by permitting DHS and SSA, upon reasonable notice, to review Forms I-9 and other employment records and to interview it and its employees regarding the Employer's use of E-Verify, and to respond in a timely and accurate manner to DHS requests for information relating to their participation in E-Verify.

#### **D. RESPONSIBILITIES OF FEDERAL CONTRACTORS WITH THE FAR E-VERIFY CLAUSE**

1. The Employer understands that if it is a Federal contractor subject to the employment verification terms in Subpart 22.18 of the FAR it must verify the employment eligibility of any existing employee assigned to the contract and all new hires, as discussed in the Supplemental Guide for Federal Contractors. Once an employee has been verified through E-Verify by the Employer, the Employer may not reverify the employee through E-Verify.
  - a. Federal contractors with the FAR E-Verify clause agree to become familiar with and comply with the most recent versions of the E-Verify User Manual for Federal Contractors and the E-Verify Supplemental Guide for Federal Contractors.

- b. Federal contractors with the FAR E-Verify clause agree to complete a tutorial for Federal contractors with the FAR E-Verify clause.
- c. Federal contractors with the FAR E-Verify clause not enrolled at the time of contract award: An Employer that is not enrolled in E-Verify as a Federal contractor at the time of a contract award must enroll as a Federal contractor with the FAR E-Verify clause in E-Verify within 30 calendar days of contract award and, within 90 days of enrollment, begin to use E-Verify to initiate verification of employment eligibility of new hires of the Employer who are working in the United States, whether or not assigned to the contract. Once the Employer begins verifying new hires, such verification of new hires must be initiated within 3 business days after the date of hire. Once enrolled in E-Verify as a Federal contractor with the FAR E-Verify clause, the Employer must initiate verification of employees assigned to the contract within 90 calendar days from the time of enrollment in the system and then selecting which employees will be verified in E-Verify or within 30 days of an employee's assignment to the contract, whichever date is later.
- d. Employer that are already enrolled in E-Verify at the time of a contract award but are not enrolled in the system as a Federal contractor with the FAR E-Verify clause: Employers enrolled in E-Verify as a Federal contractor for 90 days or more at the time of a contract award must use E-Verify to initiate verification of employment eligibility for new hires of the Employer who are working in the United States, whether or not assigned to the contract, within 3 business days after the date of hire. Employers enrolled in E-Verify as other than a Federal contractor with the FAR E-Verify clause, must update E-Verify to indicate that they are a Federal contractor with the FAR E-Verify clause within 30 days after assignment to the contract. If the Employer is enrolled in E-Verify for 90 calendar days or less at the time of contract award, the Employer must, within 90 days of enrollment, begin to use E-Verify to initiate verification of new hires of the contractor who are working in the United States, whether or not assigned to the contract. Such verification of new hires must be initiated within 3 business days after the date of hire. An Employer enrolled as a Federal contractor with the FAR E-Verify clause in E-Verify must initiate verification of each employee assigned to the contract within 90 calendar days after date of contract award or within 30 days after assignment to the contract, whichever is later.
- e. Institutions of higher education, State, local and tribal governments and sureties: Federal contractors with the FAR E-Verify clause that are institutions of higher education (as defined at 20 U.S.C. 1001(a)), State or local governments, governments of Federally recognized Indian tribes, or sureties performing under a takeover agreement entered into with a Federal agency pursuant to a performance bond may choose to only verify new and existing employees assigned to the Federal contract. Such Federal contractors with the FAR E-Verify clause may, however, elect to verify all new hires, and/or all existing employees hired after November 6, 1986. The provisions of Article II, part D, paragraphs 1.a and 1.b of this MOU providing timeframes for initiating employment verification of employees assigned to a

contract apply to such institutions of higher education, State, local , tribal governments, and sureties.

- f. Verification of all employees: Upon enrollment, Employers who are Federal contractors with the FAR E-Verify clause may elect to verify employment eligibility of all existing employees working in the United States who were hired after November 6, 1986, instead of verifying only new employees and those existing employees assigned to a covered Federal contract. After enrollment, Employers must elect to do so only in the manner designated by DHS and initiate E-Verify verification of all existing employees within 180 days after the election.
  - g. Form I-9 procedures for existing employees of Federal contractors with the FAR E-Verify clause: Federal contractors with the FAR E-Verify clause (through their E-Verify Employer Agent) may choose to complete new Forms I-9 for all existing employees other than those that are completely exempt from this process. Federal contractors with the FAR E-Verify clause may also update previously completed Forms I-9 to initiate E-Verify verification of existing employees who are not completely exempt as long as that Form I-9 is complete (including the SSN), complies with Article II.C.4, the employee's work authorization has not expired, and the Employer has reviewed the information reflected in the Form I-9 either in person or in communications with the employee to ensure that the employee's stated basis in section 1 of the Form I-9 for work authorization has not changed (including, but not limited to, a lawful permanent resident alien having become a naturalized U.S. citizen). If the Employer is unable to determine that the Form I-9 complies with Article II.C.4, if the employee's basis for work authorization as attested in section 1 has expired or changed, or if the Form I-9 contains no SSN or is otherwise incomplete, the Employer shall complete a new I-9 consistent with Article II.C.4, or update the previous I-9 to provide the necessary information. If section 1 of the Form I-9 is otherwise valid and up-to-date and the form otherwise complies with Article II.C.4, but reflects documentation (such as a U.S. passport or Form I-551) that expired subsequent to completion of the Form I-9, the Employer shall not require the production of additional documentation, or use the photo screening tool described in Article II.C.4, subject to any additional or superseding instructions that may be provided on this subject in the Supplemental Guide for Federal Contractors. Nothing in this section shall be construed to require a second verification using E-Verify of any assigned employee who has previously been verified as a newly hired employee under this MOU, or to authorize verification of any existing employee by any Employer that is not a Federal contractor with the FAR E-Verify clause.
2. The Employer understands that if it is a Federal contractor with the FAR E-Verify clause, its compliance with this MOU is a performance requirement under the terms of the Federal contract or subcontract, and the Employer consents to the release of information relating to compliance with its verification responsibilities under this MOU to contracting officers or other officials authorized to review the Employer's compliance with Federal contracting requirements.

## **E. RESPONSIBILITIES OF THE E-VERIFY EMPLOYER AGENT**

1. The E-Verify Employer Agent agrees to provide to the SSA and DHS the names, titles, addresses, and telephone numbers of the E-Verify Employer Agent representatives who will be accessing information under E-Verify.
2. The E-Verify Employer Agent agrees to become familiar with and comply with the E-Verify User Manual and provide a copy of the manual to the Employer so that the Employer can become familiar with and comply with E-Verify policy and procedures.
3. The E-Verify Employer Agent agrees that any E-Verify Employer Agent Representative who will perform employment verification queries will complete the E-Verify Tutorial before that individual initiates any queries.
  - a. The E-Verify Employer Agent agrees that all E-Verify Employer Agent representatives will take the refresher tutorials initiated by the E-Verify program as a condition of continued use of E-Verify, including any tutorials for Federal contractors if the Employer is a Federal contractor.
  - b. Failure to complete a refresher tutorial will prevent the E-Verify Employer Agent and Employer from continued use of the program.
4. The E-Verify Employer Agent agrees to obtain the necessary equipment to utilize E-Verify.
5. The E-Verify Employer Agent agrees to provide the Employer with the notices described in Article II.B.4 above.
6. The E-Verify Employer Agent agrees to initiate E-Verify procedures on behalf of the Employer in accordance with the E-Verify Manual and E-Verify Web-Based Tutorial. The E-Verify Employer Agent will query the automated system using information provided by the Employer and will immediately communicate the response back to the Employer. If the automated system to be queried is temporarily unavailable, the 3-day time period is extended until it is again operational in order to accommodate the E-Verify Employer Agent's attempting, in good faith, to make inquiries on behalf of the Employer during the period of unavailability. In all cases, the E-Verify Employer Agent will use the SSA verification procedures first, and will use DHS verification procedures only as directed by the SSA verification response.
7. The E-Verify Employer Agent agrees to cooperate with DHS and SSA in their compliance monitoring and evaluation of E-Verify, including by permitting DHS and SSA, upon reasonable notice, to review Forms I-9 and other employment records and to interview it and its employees regarding the use of E-Verify, and to respond in a timely and accurate manner to DHS requests for information relating to their participation in E-Verify.

### **ARTICLE III**

#### **REFERRAL OF INDIVIDUALS TO SSA AND DHS**

## **A. REFERRAL TO SSA**

1. If the Employer receives a tentative nonconfirmation issued by SSA, the Employer must print the tentative nonconfirmation notice as directed by the automated system and provide it to the employee so that the employee may determine whether he or she will contest the tentative nonconfirmation.
2. The Employer will refer employees to SSA field offices only as directed by the automated system based on a tentative nonconfirmation, and only after the Employer records the case verification number, reviews the input to detect any transaction errors, and determines that the employee contests the tentative nonconfirmation. The Employer (through the E-Verify Employer Agent), will transmit the Social Security Number to SSA for verification again if this review indicates a need to do so. The Employer will determine whether the employee contests the tentative nonconfirmation as soon as possible after the Employer receives it.
3. If the employee contests an SSA tentative nonconfirmation, the Employer will provide the employee with a system-generated referral letter and instruct the employee to visit an SSA office within 8 Federal Government work days. SSA will electronically transmit the result of the referral to the Employer (through the E-Verify Employer Agent) within 10 Federal Government work days of the referral unless it determines that more than 10 days is necessary. The Employer agrees to check the E-Verify system regularly for case updates.
4. The Employer agrees not to ask the employee to obtain a printout from the Social Security Number database (the Numident) or other written verification of the Social Security Number from the SSA.

## **B. REFERRAL TO DHS**

1. If the Employer receives a tentative nonconfirmation issued by DHS, the Employer must print the tentative nonconfirmation notice as directed by the automated system and provide it to the employee so that the employee may determine whether he or she will contest the tentative nonconfirmation.
2. If the Employer finds a photo non-match for an employee who provides a document for which the automated system has transmitted a photo, the employer must print the photo non-match tentative nonconfirmation notice as directed by the automated system and provide it to the employee so that the employee may determine whether he or she will contest the finding.
3. The Employer agrees to refer individuals to DHS only when the employee chooses to contest a tentative nonconfirmation received from DHS automated verification process or when the Employer issues a tentative nonconfirmation based upon a photo non-match. The Employer will determine whether the employee contests the tentative nonconfirmation as soon as possible after the Employer receives it.
4. If the employee contests a tentative nonconfirmation issued by DHS, the Employer will provide the employee with a referral letter and instruct the employee to contact

DHS through its toll-free hotline (as found on the referral letter) within 8 Federal Government work days.

5. If the employee contests a tentative nonconfirmation based upon a photo non-match, the Employer will provide the employee with a referral letter to DHS. DHS will electronically transmit the result of the referral to the Employer within 10 Federal Government work days of the referral unless it determines that more than 10 days is necessary. The Employer agrees to check the E-Verify system regularly for case updates.
6. The Employer agrees that if an employee contests a tentative nonconfirmation based upon a photo non-match, the Employer (or the E-Verify Employer Agent) will send a copy of the employee's Form I-551 or Form I-766 to DHS for review by:
  - Scanning and uploading the document, or
  - Sending a photocopy of the document by and express mail account (paid for at employer expense).
7. If the Employer (through the E-Verify Employer Agent) determines that there is a photo non-match when comparing the photocopied List B document described in Article II.C.4 with the image generated in E-Verify, the Employer (through the E-Verify Employer Agent) must forward the employee's documentation to DHS using one of the means described in the preceding paragraph, and allow DHS to resolve the case.

#### **ARTICLE IV**

#### **SERVICE PROVISIONS**

The SSA and DHS will not charge the Employer or the E-Verify Employer Agent for verification services performed under this MOU. DHS is not responsible for providing the equipment needed to make inquiries. A personal computer with Internet access is needed to access the E-Verify System.

#### **ARTICLE V**

#### **PARTIES**

- A. This MOU is effective upon the signature of all parties, and shall continue in effect for as long as the SSA and DHS conduct the E-Verify program unless modified in writing by the mutual consent of all parties, or terminated by any party upon 30 days prior written notice to the others. Any and all system enhancements to the E-Verify program by DHS or SSA, including but not limited to the E-Verify checking against additional data sources and instituting new verification procedures, will be covered under this MOU and will not cause the need for a supplemental MOU that outlines these changes. DHS agrees to train employers on all changes made to E-Verify through the use of mandatory refresher tutorials and updates to the E-Verify User Manual, the E-Verify User Manual for Federal Contractors, or the E-Verify Supplemental Guide for Federal Contractors. Even without changes to E-Verify, DHS reserves the right to require employers to take mandatory refresher tutorials. An Employer that is a Federal contractor with the FAR E-Verify clause may terminate this MOU when the Federal contract that requires its participation in E-Verify is terminated or

completed. In such a circumstance, the Federal contractor with the FAR E-Verify clause must provide written notice to DHS. If an Employer that is a Federal contractor with the FAR E-Verify clause fails to provide such notice, that Employer will remain a participant in the E-Verify program, will remain bound by the terms of this MOU that apply to participants that are not Federal contractors with the FAR E-Verify clause, and will be required to use the E-Verify procedures to verify the employment eligibility of all newly hired employees.

- B. Notwithstanding Article V, part A of this MOU, DHS may terminate access to E-Verify if it is deemed necessary because of the requirements of law or policy, or upon a determination by SSA or DHS that there has been a breach of system integrity or security by the E-Verify Employer Agent or the Employer, or a failure on the part of either to comply with established procedures or legal requirements. The Employer understands that if it is a Federal contractor with the FAR E-Verify clause, termination of this MOU by any party for any reason may negatively affect the Employer's performance of its contractual responsibilities.
- C. Some or all SSA and DHS responsibilities under this MOU may be performed by contractor(s), and SSA and DHS may adjust verification responsibilities between each other as they may determine necessary. By separate agreement with DHS, SSA has agreed to perform its responsibilities as described in this MOU.
- D. Nothing in this MOU is intended, or should be construed, to create any right or benefit, substantive or procedural, enforceable at law by any third party against the United States, its agencies, officers, or employees, or against the E-Verify Employer Agent, the Employer, or their agents, officers, or employees.
- E. Each party shall be solely responsible for defending any claim or action against it arising out of or related to E-Verify or this MOU, whether civil or criminal, and for any liability wherefrom, including (but not limited to) any dispute between the E-Verify Employer Agent or the Employer and any other person or entity regarding the applicability of Section 403(d) of IIRIRA to any action taken or allegedly taken by the E-Verify Employer Agent or the Employer.
- F. Participation in E-Verify is not confidential information and may be disclosed as authorized or required by law and DHS or SSA policy, including but not limited to, Congressional oversight, E-Verify publicity and media inquiries, determinations of compliance with Federal contractual requirements, and responses to inquiries under the Freedom of Information Act (FOIA).
- G. The foregoing constitutes the full agreement on this subject between DHS, the Employer and the E-Verify Employer Agent.

\_\_\_\_\_(Employer) hereby designates and appoints \_\_\_\_\_(E-Verify Employer Agent), including its officers and employees, as the E-Verify Employer Agent for the purpose of carrying out \_\_\_\_\_(Employer) responsibilities under the MOU between the Employer, the E-Verify Employer Agent, and DHS.

The individuals whose signatures appear below represent that they are authorized to enter into this MOU on behalf of the Employer, the E-Verify Employer Agent and DHS respectively.

If you have any questions, contact E-Verify at 1-888-464-4218.

**Approved by:**

**Employer**

\_\_\_\_\_  
Name (Please Type or Print)

\_\_\_\_\_  
Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**E-Verify Employer Agent**

\_\_\_\_\_  
Name (Please Type or Print)

\_\_\_\_\_  
Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**Department of Homeland Security – Verification Division**

\_\_\_\_\_  
Name (Please Type or Print)

\_\_\_\_\_  
Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**Information Required  
For the E-Verify E-Verify Employer Agent Program**

**Information relating to your Company:**

Company Name: \_\_\_\_\_

Company Facility Address: \_\_\_\_\_  
\_\_\_\_\_

---

County or Parish: \_\_\_\_\_

Employer Identification  
Number: \_\_\_\_\_

North American Industry  
Classification Systems  
Code: \_\_\_\_\_

Administrator: \_\_\_\_\_

Number of Employees: \_\_\_\_\_

**BUSINESS TRANSACTION AUTHORIZATION**

I HEREBY AUTHORIZE The City of Foley (the “End User”) to obtain “consumer reports” and/or “investigative consumer reports” in connection with a business transaction that I initiated and which is stated below. To this end, I hereby authorize, without reservation, any person or entity, law enforcement agency, administrator, state or federal agency, institution, school or university (public or private), information service bureau, employer, or insurance company to furnish any and all background information to ESS, 2500 Southlake Park, Birmingham, AL 35244, toll free 866.859.0143, [www.es2.com](http://www.es2.com), or its subcontractor or another outside organization acting on behalf of ESS. The term “background information” includes, but is not limited to, employment history, reference checks, criminal and civil history information, motor vehicle records, moving violation reports, sex offender status information, credit reports, education verification, professional licensure verification, drug testing, information related to my Social Security number, and information concerning workers’ compensation claims. I agree that a facsimile (“fax”), electronic or photographic copy of this Authorization shall be as valid as the original. I acknowledge receipt of the Disclosure Of Procurement Of Investigative Consumer Report For Business Transactions. I understand I can view ESS’s Privacy Policy on its website, [www.es2.com](http://www.es2.com).

Specify Nature of Business Transaction: **BON SECOUR RIVER CONSTRUCTED WETLANDS**

You have the right to request from the End User a written summary of the rights of a consumer prepared pursuant to the Fair Credit Reporting Act, 15 U.S.C. § 1681g(c).

\_\_\_\_\_  
Signature of Consumer

\_\_\_\_\_  
Date

**CONSUMER INFORMATION: TO BE COMPLETED BY CONSUMER: PLEASE USE BLACK INK**

<b>The following is for identification purposes only to perform the <u>background check and will not be used for any other purpose.</u></b>			
Print: Last Name	First Name	Middle Initial	
Date of Birth	Social Security Number	Driver's License Number	State
Current Address:	City	State	Zip Code
Previous Address (Past 7 Years):	City	State	Zip Code
Previous Address (Past 7 Years):	City	State	Zip Code
Alias Names (Other names I have been known by):			
Degree Obtained	Year Graduated	Name of School	City and State of School
Last Name Used at Time of Graduation			

**Searches to be Ordered**


*Para informacion en espanol, visite [www.consumerfinance.gov/learnmore](http://www.consumerfinance.gov/learnmore) o escribe a la Consumer Financial Protection Bureau, 1700 G Street N.W., Washington, DC 20522.*

## A Summary of Your Rights Under the Fair Credit Reporting Act

The federal Fair Credit Reporting Act (FCRA) promotes accuracy, fairness, and privacy of information in the files of consumer reporting agencies. There are many types of consumer reporting agencies, including credit bureaus and specialty agencies (such as agencies that sell information about check writing histories, medical records, and rental history records). Here is a summary of your major rights under the FCRA. **For more information, including information about additional rights, go to [www.consumerfinance.gov/learnmore](http://www.consumerfinance.gov/learnmore) or write to: Consumer Financial Protection Bureau, 1700 G Street N.W., Washington, DC 20552.**

- **You must be told if information in your file has been used against you.** Anyone who uses a credit report or another type of consumer report to deny your application for credit, insurance, or employment – or to take another adverse action against you – must tell you, and must give you the name, address, and phone number of the agency that provided the information.
- **You have the right to know what is in your file.** You may request and obtain all the information about you in the files of a consumer reporting agency (your “file disclosure”). You will be required to provide proper identification, which may include your Social Security number. In many cases, the disclosure will be free. You are entitled to a free file disclosure if:
  - A person has taken adverse action against you because of information in your credit report;
  - You are the victim of identity theft and place a fraud alert in your file;
  - Your file contains inaccurate information as a result of a fraud;
  - You are on public assistance;
  - You are unemployed but expect to apply for employment within 60 days.

In addition, all consumers are entitled to one free disclosure every 12 months upon request from each nationwide credit bureau and from nationwide specialty consumer reporting agencies. See [www.consumerfinance.gov/learnmore](http://www.consumerfinance.gov/learnmore) for additional information.

- **You have the right to ask for a credit score.** Credit scores are numerical summaries of your credit-worthiness based on information from credit bureaus. You may request a credit score from consumer reporting agencies that create scores or distribute scores used in residential real property loans, but you will have to pay for it. In some mortgage transactions, you will receive credit score information for free from the mortgage lender.
- **You have the right to dispute incomplete or inaccurate information.** If you identify information in your file that is incomplete or inaccurate, and report it to the consumer reporting agency, the agency must investigate unless your dispute is frivolous. See [www.consumerfinance.gov/learnmore](http://www.consumerfinance.gov/learnmore) for an explanation of dispute procedures.
- **Consumer reporting agencies must correct or delete inaccurate, incomplete, or unverifiable information.** Inaccurate, incomplete or unverifiable information must be removed or corrected, usually within 30 days. However, a consumer reporting agency may continue to report information it has verified as accurate.
- **Consumer reporting agencies may not report outdated negative information.** In most cases, a consumer reporting agency may not report negative information that is more than seven years old, or bankruptcies that are more than 10 years old.

- **Access to your file is limited.** A consumer reporting agency may provide information about you only to people with a valid need – usually to consider an application with a creditor, insurer, employer, landlord, or other business. The FCRA specifies those with a valid need for access.
- **You must give your consent for reports to be provided to employers.** A consumer reporting agency may not give out information about you to your employer, or a potential employer, without your written consent given to the employer. Written consent generally is not required in the trucking industry. For more information, go to [www.consumerfinance.gov/learnmore](http://www.consumerfinance.gov/learnmore).
- **You may limit “prescreened” offers of credit and insurance you get based on information in your credit report.** Unsolicited “prescreened” offers for credit and insurance must include a toll-free phone number you can call if you choose to remove your name and address from the lists these offers are based on. You may opt-out with the nationwide credit bureaus at 1-888-5-OPTOUT (1-888-567-8688).
- **You may seek damages from violators.** If a consumer reporting agency, or, in some cases, a user of consumer reports or a furnisher of information to a consumer reporting agency violates the FCRA, you may be able to sue in state or federal court.
- **Identity theft victims and active duty military personnel have additional rights.** For more information, visit [www.consumerfinance.gov/learnmore](http://www.consumerfinance.gov/learnmore).

**States may enforce the FCRA, and many states have their own consumer reporting laws. In some cases, you may have more rights under state law. For more information, contact your state or local consumer protection agency or your state Attorney General. For information about your federal rights, contact:**

**TYPE OF BUSINESS:**

1.a. Banks, savings associations, and credit unions with total assets of over \$10 billion and their affiliates.

b. Such affiliates that are not banks, savings associations, or credit unions also should list, in addition to the CFPB:

2. To the extent not included in item 1 above:

a. National banks, federal savings associations, and federal branches and federal agencies of foreign banks

b. State member banks, branches and agencies of foreign banks (other than federal branches, federal agencies, and Insured State Branches of Foreign Banks), commercial lending companies owned or controlled by foreign banks, and organizations operating under section 25 or 25A of the Federal Reserve Act

c. Nonmember Insured Banks, Insured State Branches of Foreign Banks, and insured state savings associations

d. Federal Credit Unions

3. Air carriers

4. Creditors Subject to Surface Transportation Board

5. Creditors Subject to Packers and Stockyards Act, 1921

6. Small Business Investment Companies

7. Brokers and Dealers

8. Federal Land Banks, Federal Land Bank Associations, Federal Intermediate Credit Banks, and Production Credit Associations

9. Retailers, Finance Companies, and All Other Creditors Not Listed Above

**CONTACT:**

a. Consumer Financial Protection Bureau  
1700 G Street NW  
Washington, DC 20552

b. Federal Trade Commission: Consumer Response Center – FCRA  
Washington, DC 20580  
(877) 382-4357

a. Office of the Comptroller of the Currency  
Customer Assistance Group  
1301 McKinney Street, Suite 3450  
Houston, TX 77010-9050

b. Federal Reserve Consumer Help Center  
P.O. Box 1200  
Minneapolis, MN 55480

c. FDIC Consumer Response Center  
1100 Walnut Street, Box #11  
Kansas City, MO 64106

d. National Credit Union Administration  
Office of Consumer Protection (OCP)  
Division of Consumer Compliance and Outreach (DCCO)  
1775 Duke Street  
Alexandria, VA 22314

Asst. General Counsel for Aviation Enforcement & Proceedings  
Aviation Consumer Protection Division  
Department of Transportation  
1200 New Jersey Avenue, SE  
Washington, DC 20590  
Office of Proceedings, Surface Transportation Board  
Department of Transportation  
395 E Street S.W.  
Washington, DC 20423

Nearest Packers and Stockyards Administration area supervisor

Associate Deputy Administrator for Capital Access  
United States Small Business Administration  
409 Third Street, SW, 8th Floor  
Washington, DC 20416

Securities and Exchange Commission  
100 F St NE  
Washington, DC 20549

Farm Credit Administration  
1501 Farm Credit Drive  
McLean, VA 22102-5090

FTC Regional Office for region in which the creditor operates or  
Federal Trade Commission: Consumer Response Center – FCRA  
Washington, DC 20580  
(877) 382-4357

**APPENDIX B**

**Bon Secour River Constructed Wetlands**

Supplemental General Conditions EJCDC C-700

# 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 consider the proposed item as a substitute pursuant to Paragraph 7.05.

#### 7.05 *Substitutes*

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

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

#### 7.06 *Concerning Subcontractors, Suppliers, and Others*

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

- E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.
- F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
- G. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.
- H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
- I. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.
- J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.
- K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.
- L. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.
- N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.

O. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor
2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

7.07 *Patent Fees and Royalties*

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

7.08 *Permits*

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

#### 7.09 *Taxes*

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

#### 7.10 *Laws and Regulations*

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

#### 7.11 *Record Documents*

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

#### 7.12 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
  - 1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
  3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
  - C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
  - D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
  - E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
  - F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).
  - G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

#### 7.13 *Safety Representative*

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

#### 7.14 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or

exchanged between or among employers at the Site in accordance with Laws or Regulations.

#### 7.15 *Emergencies*

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

#### 7.16 *Shop Drawings, Samples, and Other Submittals*

##### A. *Shop Drawing and Sample Submittal Requirements:*

1. Before submitting a Shop Drawing or Sample, Contractor shall have:
  - a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
  - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
  - c. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
  - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.
3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.

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

##### 1. *Shop Drawings:*

- a. Contractor shall submit the number of copies required in the Specifications.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to

provide and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.D.

2. *Samples:*
    - a. Contractor shall submit the number of Samples required in the Specifications.
    - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.
  3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Other Submittals:* Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.
- D. *Engineer's Review:*
1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
  2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.
  3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
  4. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.
  5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.
  6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
  7. Neither Engineer's receipt, review, acceptance nor approval of a Shop Drawing, Sample, nor 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.

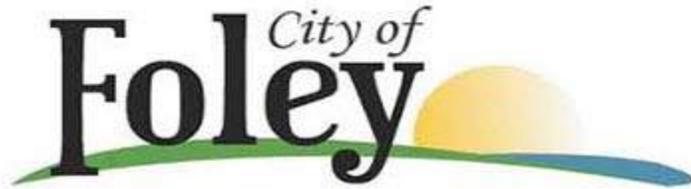
**APPENDIX C**

**Bon Secour River Constructed Wetland**

Design Specifications

**Prepared For:**

City of Foley, Alabama



**Prepared By:**

**VOLKERT**

December 2020

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**1 MAINTENANCE****1.1 EXECUTION****1.2.3 1.1.1 Maintenance Service**

- A. The Contractor shall provide labor, materials, equipment, and means for proper maintenance of all materials and workmanship until Substantial Completion of the project.
- B. Beginning at Substantial Completion, maintenance shall include labor, materials, equipment, and means for proper maintenance of all materials and workmanship for a period of Twenty-four (24) months.
- C. The contractor shall perform maintenance as directed by the Engineer or Owner.
- D. Maintenance will not include damage caused as a direct result of a discharge exceeding a 100-year discharge as determined by the Engineer of Record Hydraulic Report. A copy of the hydraulic report will be provided upon request.

**2.2.3 1.1.2 Method of Measurement**

“Maintenance” will not be measured and will be a subsidiary obligation of item 2.1, Mobilization.

**3.2.3****1.1.3 Basis of Payment**

The item of Maintenance, as noted above, will be a subsidiary obligation of Mobilization and shall be full compensation for maintenance service for the period noted in item 1.1.1.

**2 SITE PREPARATION****2.1 MOBILIZATION****2.1.2 Description**

This Section shall cover the preparatory work and operations including, but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to the project site; for the establishment of all job site facilities necessary for progression of work on the project; and for all other work and operations which must be performed or costs incurred prior to beginning work on the various items on the project site.

Mobilization shall include sanitary facilities. The Contractor shall furnish and install temporary sanitary facilities for use throughout construction period. This includes containers to dispense drinking water, enclosed toilet facilities and general washing facilities for construction personnel, which complies with OSHA safety and health regulations for these facilities. All sanitary facilities are to be within project site. Sanitary facilities are to be located in a staging area and are to be away from streams and wetlands.

A site inspection box will be provided as incidental part to the cost of mobilization. The site inspection box shall be of adequate size to hold plans, specifications, permits and other documents on site. The site inspection box must be unlocked during working hours.

A rain gauge shall be installed near the inspection box, yet must be free to collect rainfall unimpeded by vegetation and other overhanging objects. Rain gauge readings shall be recorded by the Contractor at beginning of every workday. After readings are taken, the gauge shall be reset by pouring out the old rain water.

**2.1.3 Method of Measurement**

“Mobilization” will not be measured but will be paid for at the Contract lump sum (LS) price. This work includes mobilization and demobilization required by the contract at the time of award.

**2.1.4 Basis of Payment**

The item of Mobilization, measured as noted above, will be paid for at the contract lump sum price bid. Said lump sum price bid shall be full compensation for organizing and moving all labor, tools, equipment, supplies, and incidentals to the project site and for disbanding, disorganizing, and removing all labor,

tools, equipment, supplies, and incidentals from the project site, regardless of number of times such moves are made, including all preconstruction costs exclusive of bidding costs.

## 2.2 CONSTRUCTION STAKEOUT & GEOMETRIC CONTROLS

### 2.2.2 Description

The work consists of furnishing, placing, and maintaining construction stakes, lines, and grades necessary for establishing the accurate location of all features of construction. Surveying shall be performed by qualified personnel, employed by or on behalf of the Contractor. The Contractor shall ensure that all construction staking is performed under the direct supervision of a Professional Land Surveyor (PLS), licensed in the State of Alabama. The contractor will be required to provide the name and license number of the responsible PLS at the project pre-construction conference.

### 2.2.3 Execution

The Engineer will furnish centerline control points for each alignment, inclusive of line and curve data, at intervals deemed necessary by the Engineer for the contractor to establish alignment throughout the project limits. Benchmarks will be furnished within the project area for vertical control. Sufficient design stream level cross-section information (elevations, slopes, etc.) will be provided to enable the contractor to establish grade stakes.

The Contractor shall be responsible for all layout and geometric control work necessary for construction of all items of work. The Contractor shall use the plans, controls and other data furnished by the Engineer in establishing the required location of all features of the work. The Contractor shall be responsible for the utilization and preservation of all furnished controls. The Contractor shall replace Engineer furnished control stakes or marks that are disturbed by the Contractor during construction. The Contractor shall establish control points and necessary benchmarks for the proper layout of the work. The Contractor shall make all calculations involved and shall furnish and place all layout stakes or markers. The Contractor shall exercise care in the preservation of stakes, control points and markers, and bench marks and shall have them reset at the Contractor's own cost when they are damaged, lost, displaced or removed. The Contractor shall be responsible for the proper layout of the Project. The Contractor shall be responsible for reporting any discrepancies to the Engineer for clarification. Minor adjustments to suit field conditions are anticipated, and it shall be the responsibility of the Engineer to make decisions regarding adjustments. Any inspection or checking of the Contractor's layout by the Engineer and the acceptance of such shall not relieve the Contractor of its responsibility to secure the proper dimensions, grades, and elevation of the required work.

**The Contractor shall be required to have the ability for stakeless construction through the use of survey grade GPS and machine controls for the precision grading of the channel, wetland braids and floodplain work.**

### 2.2.4 Method of Measurement

Measurement for "Construction Stakeout" shall be Lump Sum (LS).

### 2.2.5 Basis of Payment

"Construction Stakeout" shall be measured and paid for as a lump sum item. The payment will be full compensation for furnishing, setting, and preserving construction stakes, lines and grades. Payment shall include any materials, labor, equipment, tools, and incidentals necessary to complete the work. No additional payment will be made to reset stakes, control points and markers, and benchmarks that have been damaged, lost, displaced, or removed.

## 2.3 CLEARING AND GRUBBING

### 2.3.2 Description

Contractor shall coordinate with Engineer prior to commencing any clearing and grubbing on site. Some woody material may be set aside for use in wood toe and log sills. See Section 4.7 for more information. Trees outside the designated project limits shall be protected site preparations shall include the removal

of trees, stumps, brush, bushes, concrete, and/or stone masonry, steps, walks, and structures where site access, staging/stockpiling, or grading is proposed in the plans. Trees, shrubs, fences, retaining walls, and other such items not specifically noted on the Plans or these Specifications to be removed shall not be disturbed unless so directed by the Engineer. Site preparation shall be accomplished in a manner that will not result in damage to existing utilities or structures, trees, or landscaping not designated for removal. If any such damage does occur due to the Contractor's operations, the Contractor shall repair the damage at his expense.

A. Sensitive areas shall be marked prior to any clearing and grubbing work. The Contractor assumes responsibility for "in-kind" replacement of anything damaged within the sensitive areas.

B. Clearing and grubbing operations shall be performed to the grading limits shown on the construction plans or as directed by the Engineer.

C. Debris shall be disposed of off-site at a location to be determined by the Contractor. Debris shall include any material designated by the Engineer, trash or excess organic material, and shall be removed at no additional cost to the payment of Clearing and Grubbing.

#### **2.3.2.1 Tree Removal**

Tree removal shall be accomplished in a manner that will not result in damage to existing utilities, structures, or trees not designated for removal. Tree removal shall include removal of the stump to at least six inches below the finished grade. Tree and stump removal shall be performed by mechanical excavation, chipping or sawing. Tree removal shall be limited to the extents of grading. It is emphasized that damage to trees outside the extents of grading is prohibited unless authorized by the Engineer or Owner.

Prior to clearing and grubbing, the Contractor and Engineer will mark trees designated for use in log sills and wood toe. Trees marked for removal and use in Woody Debris Toe Protection shall be removed with care. Residue from stump grinding shall be removed and replaced with soil.

#### **2.3.2.2 Tree Preservation**

It is the intent of this project to limit the land disturbance and tree removal to the greatest extent possible in the areas noted for priority one restoration, or generally the limits of construction. For other areas, trees outside the limits of construction shall be protected. This shall be achieved by the following:

A. Prior to commencing any construction, all trees to be removed must be flagged, and those designated to remain must have a protective barrier surrounding the canopy drip-line. In lieu of flagging, the contractor may request a walk through with the Engineer and City representative to designate trees to remain.

B. Tree protection barriers shall be a minimum of three (3) feet high and constructed of silt fence or polyethylene laminar safety fencing or similar material, subject to approval by the engineer. The protective barrier shall remain in place until construction activity within that project section is completed. No equipment, chemicals, soil deposits, or construction materials shall be stored within the protective barriers.

C. Construction may not begin until the engineer has verified that all trees are flagged and protected. If the protective barrier is removed at any time during construction, the engineer may issue a stop work order until such time as the protective barriers are reestablished.

D. The contractor may trim low-lying tree branches from the trees to remain so that damage to the trees by construction vehicles and other construction activities are minimized.

E. The contractor may be required to fertilize before and after construction, water the trees during construction, or mulch and aerate the surrounding soil at the discretion of the engineer.

F. Any new trees to be planted in connection with the project shall be planted as the

project progresses. Areas which have been stabilized shall have limited access after approval from the engineer with the intent to minimize tracking of construction equipment in sensitive areas.

### **2.3.3 Method of Measurement**

The quantity of "Clearing and Grubbing" will be measured by the acre (AC).

### **2.3.4 Basis of Payment**

The quantity of "Clearing and Grubbing" will be paid for per acre (AC). Price and payment will constitute full compensation for replacement of suitable material that was cleared and grubbed; for replacement or repair of damaged trees, shrubbery, or plants designated to remain; for disposal; and for all labor, equipment, tools, and incidentals required to complete the work.

## **2.4 CONSTRUCTION ACCESS**

### **2.4.2 Description**

The contractor shall establish construction access through the project site as indicated in the plans. Access provides dedicated routes of ingress and egress from the staging area, to the project site, and along points of construction in the project site. Any removal of trees shall be incidental to the construction of the roads and shall be accounted for in Clearing and Grubbing. Silt fencing shall be installed between access roads and the stream and/or wetlands.

### **2.4.3 Method of Measurement**

The establishment of "Construction Access Roads" shall be Lump Sum (LS). Silt fencing installed along the roads shall not be included in the measurement of "Construction Access".

### **2.4.4 Basis of Payment**

Payment will be made upon establishment of "Construction Access Roads" and for all labor, equipment, tools, and incidentals required to complete the work. Payment shall also include compensation for restoration of access roads to pre-construction conditions prior to project close-out. Payment of items associated with silt fencing shall be included as part of payment for Silt Fence (Section 5.2).

### 3 EARTHWORK

#### 3.1 EQUIPMENT SPECIFICATION

All excavation and earthwork shall be done with equipment that has a maximum of 1,250 lb per square foot ground pressure. A hydraulic excavator with a hydraulic thumb is required for the placing of structures. All equipment used on site shall be in good repair and meet the minimum specifications set forth under this contract. Additionally, no equipment shall be found leaking any fluids. If such contamination occurs, the contractor shall remediate immediately. Contractor shall report any contamination incident immediately to the appropriate regulatory agencies.

#### 3.2 UNCLASSIFIED EXCAVATION & GRADING

##### 3.2.2 Description

The Contractor shall perform grading as shown on the construction plans and typical cross-sections. Field conditions may dictate necessary adjustments to grading plans. In such cases, the Engineer shall indicate adjustments to the Contractor. Fill material required to be brought onsite to account for a material deficit or as select backfill will be paid for under borrow excavation (See Section 3.3).

All topsoil in the excavated area should be separated and stockpiled. Topsoil shall be removed to a depth of 6 inches. Organic debris shall be removed from the material before placement and stored with the topsoil. Both organics and topsoil should be added to topsoil separated at the project site and spread on top of graded floodplain to elevation indicated on the Plans.

Where invasive species of plant, including, but not limited to, Chinese privet, cogon grass, wild taro, and popcorn are present in the borrow material, the top six inches of material shall be excavated and stockpiled separate from the rest of the borrow material to minimize spread of invasive plant species. This material shall not be transported to the project site. Any additional fill from off-site sources not indicated in the Plans must be approved by the Engineer and the Owner prior to off-site borrow activities.

Without regard to the materials encountered, all excavation shall be unclassified. Excavation shall be accomplished by mechanical means. No blasting will be permitted. Any property damage caused by rock excavation operations shall be the responsibility of the Contractor. Suitable soil material and natural sorted substrate excavated from the existing stream channel shall be approved and stockpiled as directed by the Engineer.

##### 3.2.3 Construction

Salvaged topsoil shall be removed from all areas to be graded as directed by the Engineer. Prior to removing topsoil, the Contractor shall remove all surface vegetation over the areas where topsoil is to be salvaged. Topsoil shall be removed to a maximum depth of 6 inches. Topsoil shall be transported and stockpiled in separate storage piles and kept separated from other materials.

Where fill slopes are proposed at steeper than 3:1, reasonable compaction may be performed for graded areas as directed by the Engineer. Topsoil shall be reapplied to floodplain surfaces to the indicated elevation as per Plans and prior to erosion control application. Prior to planting, final grading in all areas where planting is required shall be ripped to a depth of 6 inches with excavator teeth.

All sod transplants directed by the Engineer shall be included as part of Grading.

Tolerances of grading: Stream and Floodplain +/- 0.1 ft

When the Contractor's excavation operations encounter artifacts of historical or archeological significance, the operations shall be temporarily discontinued. When directed by the Engineer, the Contractor shall excavate the site in such a manner as to preserve the artifacts encountered and allow for their removal. Such excavation, unless otherwise provided, will be considered and paid for as extra work.

##### 3.2.4 Grading Quantities

The following quantities have been calculated to serve as approximate values in determining bid amounts for grading activities. Borrow excavation quantity in loose truck bed measure has been provided in Parenthesis.

**Table 3.2 – Approximate Grading Quantities**

Site	Cut (CY)	Fill (CY)	Balance (CY)
Bon Secour River Constructed Wetland	214,425	153,030	61,395 Excess (85,000 LTBM)

**3.2.5 Method of Payment**

The quantity of “Grading” to be measured for payment shall be the total cross-sectional volume of material (CY) which has been graded.

**3.2.6 Basis of Payment**

Payment will be based on volume of graded material. Payment will not be issued for double-handling of material. Payment will be made in accordance with the Bid Schedule to the nearest cubic yard of graded material and shall include all necessary surveying, excavation, shaping, finishing, transportation, and disposal in accordance with the Plans and Specifications.

Payment as specified above shall be considered full compensation for all labor, materials, equipment and incidentals necessary to complete the Work. All work covered by the provision will be paid for at the contract cubic yard price for “grading.”

**3.3 BORROW EXCAVATION****3.3.1 Description**

Fill material shall be placed in the areas specified in the Plans to achieve the proposed grade and dimensions. Fill material excavated from cut areas as indicated in the Plans shall be considered unclassified excavation (see section 3.2). Borrow Excavation shall consist of acceptable fill material meeting AASHTO A-2-4(0) or A-4(0) gradation hauled in from approved borrow pits located outside the project site. Borrow excavation shall only be used when there is a deficit of usable material, or as directed by the engineer.

**3.3.2 Method of Payment**

The quantity of “Borrow Excavation” to be measured for payment shall be the total volume of material (CY) which has been hauled to the site for fill.

**3.3.3 Basis of Payment**

Payment will be based on volume of borrow material. Payment will not be issued for double-handling of material. Payment will be made in accordance with the Bid Schedule to the nearest cubic yard of graded material and shall include all necessary surveying, excavation, shaping, finishing, transportation, and disposal in accordance with the Plans and Specifications.

Payment as specified above shall be considered full compensation for all labor, materials, equipment and incidentals necessary to complete the Work. All work covered by the provision will be paid for at the contract cubic yard price for “Borrow Excavation.”

**3.4 Clay Plug****3.4.1 Description**

Bentonite clay or fatty clay plugs are used to plug the abandoned stream channel so as to prevent the bypass of flow once the new channel is operational. The Contractor shall install clay plugs at the locations shown on the construction plans. Field conditions may dictate necessary adjustments to the final quantity of clay required. In such cases, the Engineer shall indicate adjustments to the Contractor. Clay Plugs will be paid for per each plug installed. Each Plug shall consist of no less than 60 Cubic Yards by loose truck bed measure.

**3.4.2 Construction**

Topsoil shall be removed from each location to be plugged as directed by the Engineer. Topsoil shall be removed and stockpiled as directed in item 3.2. Once the new channel is constructed and the existing channel is ready to be plugged, the contractor shall pump around operations shall be per item 5.7. Once the area has been bypassed, a plug consisting of low permeability clay or clayey loam of AASHTO classification A-6 or as directed by the engineer. Clay shall be installed in no more than 6" lifts and compacted to 95% Standard Proctor, or as directed by the engineer.

Tolerances of grading: Stream and Floodplain +/- 0.25 ft

Clay plugs shall generally span the full width of the existing channel, be at least 20' long, and be installed to 12" below proposed floodplain grade. The total length of plugging will vary, but not less than 60 cubic yards shall be used per each plug.

**3.4.3 Method of Payment**

The quantity of "Clay Plug" to be measured for payment shall be per each 60 Cubic Yard Clay Plug installed

**3.4.4 Basis of Payment**

Payment will be per each plug installed in place. Payment will not be issued for double-handling of material. Payment shall include all necessary materials, shaping, finishing, transportation, and compaction in accordance with the Plans and Specifications.

Payment as specified above shall be considered full compensation for all labor, materials, equipment and incidentals necessary to complete the Work. All work covered by the provision will be paid for per "each" at the contract price for "clay plugs."

## 4 IN-STREAM AND FLOODPLAIN STRUCTURES

### 4.1 STRUCTURAL ROCK

#### 4.1.1 Description

The work covered by this section consists of furnishing, stockpiling, placing and maintaining approved rock to be used to construct rock cross vanes, j-hooks, boulder constructed riffles, log drop structures with boulders, augmented riffles, floodplain rock sills, sediment and erosion control measures, and for use in other locations as directed by the Engineer. The quantity of rock may be increased, decreased, or eliminated entirely at the direction of the Engineer. Such variations in quantity will not be considered as alterations in the details of construction or a change in the character of the work. Equivalent rock may be substituted for local rock if approved by the Engineer.

#### 4.1.2 Materials

Rock for "Boulder" shall consist of rock approved by the Engineer. The rock shall be sound, tough, dense, resistant to the action of air and water, and suitable in all other respects for the purpose intended. Rock shall have a minimum specific weight of 160 lb per cubic foot. Boulders shall range in weight of 1 to 2 tons per boulder, with approximate dimensions of 3'x3'x2' and as specified in the Plans. Boulders shall be relatively flat on either side in the same dimension, preferably the long dimension. Engineer shall approve boulders. Rip Rap shall be as described in the Alabama Department of Transportation standard specifications for the Class noted in the plans or specs. Generally Class 4 Riprap shall be 18 to 30 inches in diameter, Class 5 Riprap shall be 24" to 36" in diameter or as dimensioned in the plans.

No more than 5 percent of the material furnished can be less than the minimum size specified. No more than 10 percent of the material can exceed the maximum size specified.

**Table 4-1 Approximate Project Structural Rock Quantities**

	Boulder Riffles & Cross Vanes
In-Stream Structures	680 TONS

#### 4.1.3 Installation

The Contractor shall place rock, in locations shown on the construction plans to the thickness, widths, and lengths as shown on the construction plans or directed by the Engineer. All rock shall be placed neatly and uniformly with an even surface to form an in-stream structure or a sediment and erosion control device or in accordance with the construction plans and specifications, and shall meet the approval of the Engineer.

#### 4.1.4 Method of Measurement and Basis of Payment

Payment for boulders and rip rap shall be incidental to the installation of rock J-hooks, rock cross vanes, boulder riffles, log drop structures with boulders, floodplain rock sills, and any other structure or element requiring boulders. Payment for rip rap shall be incidental to the installation of augmented riffles in the tributary or any other structure or element requiring boulders. The costs associated with purchase and transportation of material shall be included in costs associated with in-stream structure installation.

### 4.2 ROCK CROSS VANE

#### 4.2.1 Description

This work consists of preparing areas at which cross vanes are to be placed, excavation of channel material, furnishing and placing footing boulders, surface boulders, separation geotextile and soil substrate, and finishing banks, structure slopes, and stream channel at the locations specified on the plans. The quantity of rock cross vanes may be increased, decreased, or eliminated entirely at the direction of the Engineer. Such variations in quantity will not be considered as alterations in the details of construction or a change in the character of the work.

Each "Rock Cross Vane" is composed of a sill, or "throat", that's perpendicular to the direction of flow. Two rock vane arms, composed of footer and header rocks, span from the sill to the bank, at 20-30 degrees horizontal from the banks. The vane arms slope upwards going downstream at 2-5% slope. Key stones span from the downstream vane arms into the bank. Each structure element spans approximately 1/3 bankfull channel width. Additional details are available in the Plans.

#### **4.2.2 Materials**

All structural rock shall meet the requirements of boulders as outlined in the specifications for "Structural Rock" in Section 3.1. Geotextile filter fabric shall be certified by the manufacturer or supplier, be non-woven, and meet the following minimum properties:

#### **4.2.3 Installation**

The footer rocks for the cross vane sill, or "throat", shall be installed by excavating a trench perpendicular to accommodate the footprint of the footer rocks and a 2 foot area upstream. In the event where installation of the Rock Cross Vane may damage tree roots, excavation shall be minimized. Place footer rocks at the bottom and downstream side of the trench. Place footer rocks abutting one another. Footer rocks shall be firmly embedded into the stream bottom substrate.

Place nonwoven geotextile fabric at the bottom of the trench with the edge of the fabric extending upstream in the trench and along the face of the footer rocks. Backfill with excavated bed material on top of the fabric to sufficiently anchor the fabric and to an elevation no greater than the top of the footer rock.

Place header rocks directly on the footer rocks and abutting one another. Header rocks shall be set on top of the footer rocks such that the header rock is slightly upstream of the footer rocks or such that the downstream length of footer rock is exposed. This will allow some length of footer such that water flowing over the header rock will cascade onto the footer rock instead of onto bed material directly. The top elevation of the header rocks placed at the thalweg shall be equal to the elevation of the thalweg, as specified on the Plans. The filter fabric shall be set along the upstream face to the top of the rocks, sealing any gaps between rock, and backfilled with excavated channel material. Gaps between rocks shall be chinked with small, loose rock.

From the throat, footer and header rocks shall be set similarly to form the vane arms. Trenches for the rocks shall be excavated at approximately 20-30 degrees to the bank, or as shown in plan details. The length of the vane arm trenches shall rise at a 2-5% slope, or as shown in plan details, from the sill rocks to the bank. The vane shall slope as depicted in the detail from the bed elevation at the head of the vane to approximately the inner berm elevation. Filter fabric shall be installed to seal the upstream face of vane arms and secured in the bottom of the trench with excavated channel material. Trim any excess geotextile fabric to be flush with the top of the top rock. At bank tie-in, key boulders shall be installed from the end of the vane arms perpendicular into the bank for a length of at least 5 feet, as shown in the plan details.

The contractor is responsible for making sure all installation activities will not interfere with any utilities prior to installation. The area between the streambank and the upstream side of the structure will be backfilled with natural sorted substrate. Upon completion of work, reshape slopes and stream bottom to specified elevations.

#### **4.2.4 Method of Measurement**

"Rock Cross Vane" structures shall be measured and paid for at unit price per each (EA) "Rock Cross Vane" installed. Nonwoven geotextile filter fabric and any additional rock needed for chinking shall be incidental to the cost of each "Rock Cross Vane" structure.

#### **4.2.5 Basis of Payment**

Payment shall be full compensation for the purchase and transport of all materials, excavation, installation and maintenance of "Rock Cross Vanes", and for all material, labor, equipment, tools, and incidentals necessary to complete the work as specified in the plans.

Such price and payment will be full compensation for all work covered by this section, including but not limited to placing, stabilizing, staking, and maintaining "Rock Cross Vane" structures.

### 4.3 FLOODPLAIN ROCK SILL

#### 4.4.1 Description

The work shall consist of installing and maintaining rock sill structures in the constructed floodplain as indicated in the plans. The sills shall be extension of sill, or key, rocks installed as part of in-stream rock structures. Series of rock sills spanning the width of the floodplain will assist in managing overbank flow and associated stresses. The rock sills include live willow bundles as part of construction

#### 4.4.2 Installation

A trench shall be excavated along the graded floodplain from the end of the in-stream structure key rock sill to the floodplain toe. The depth of the trench shall be roughly the diameter of the rock to be installed. Trench depths may vary to accommodate varying rock diameters such that the finished rock sill elevation rises evenly with the lateral slope of the floodplain.

Rocks shall be of weight and dimension of boulders as describe in Section 3.1 – “Structural Rock”. Rocks shall be set in the trench and abutting one another. The remaining width of the trench shall be backfilled with live willow cuttings and covered with excavated material. The basal ends of the cuttings shall not be covered with material.

#### 4.4.3 Method of Measurement

“Floodplain Rock Sills” shall be measured and paid for by ton (TN) of boulder purchased transported, and installed in the floodplain as part of the total “Floodplain Rock Sill” installation. Live willow bundles shall be incidental to the construction of the “Floodplain Rock Sills”.

#### 4.4.4 Basis of Payment

The labor, equipment, placing, handling, fitting, and any items additional items necessary to install the “Floodplain Rock Sills”, measured as provided above, will be paid for upon satisfactory completion of sill construction, as approved by the Engineer. The cost of procurement of live stake bundles are considered incidental to the installation of Floodplain Rock Sills. The construction of Floodplain Rock Sill Weirs shall be considered incidental to the installation of the Floodplain Rock Sills.

### 4.4 CONSTRUCTED BOULDER RIFFLE

#### 4.4.1 Description

A Constructed Boulder Riffle is comprised of boulders, select material, and natural sorted substrate placed along a riffle. The boulders are placed together in vanes along the channel. The vanes of boulder are spaced on opposing sides downstream of the previous boulder group. The pattern created is a small low-flow partially sinuous channel along the riffle.

#### 4.4.2 Materials

All structural rock shall meet the requirements of boulders as outlined under the section titled Section 3.1-“Structural Rock”.

#### 4.4.3 Installation

- Construct the upstream most vane first. Construct subsequent vanes moving downstream.
- All vanes shall have footer boulders.
- Location of the constructed riffle shall be available as linework for the contractor to use to construct both horizontal angles and elevations of the constructed riffle structures through the use of survey grade GPS.
- The contractor is responsible for making sure all installation activities will not interfere with any utilities prior to installation.

#### 4.4.4 Method of Measurement

“Constructed Boulder Riffle” structures shall be measured and paid for at unit price per each (EA) “Constructed Boulder Riffle” installed. Nonwoven geotextile filter fabric and any additional rock needed for chinking shall be incidental to the cost of the “Constructed Boulder Riffle” structure.

#### **4.4.5 Basis of Payment**

Payment shall be full compensation for the purchase and transport of all materials, excavation, installation and maintenance of "Constructed Boulder Riffles", and for all material, labor, equipment, tools, and incidentals necessary to complete the work as specified in the plans.

Such price and payment will be full compensation for all work covered by this section, including but not limited to placing, stabilizing, staking, and maintaining riffle structures.

### 4.5 Toewood

#### **4.5.1 Description**

The work shall consist of installing and maintaining Toewood revetment and associated soil lifts in the outer bank of the constructed channel as indicated in the plans. The wood toe shall consist of coarse woody debris, fine woody debris, gravel leveling bed, coir erosion fabric, soil lifts, and live staking.

#### **4.5.2 Installation & Materials**

A trench shall be excavated along the outer bank of the bankfull channel in stream bends. The depth of the trench shall not exceed the  $D_{max}$  of the Riffle below the stream bed. Trench depths may vary to accommodate varying woody debris diameters. Coarse woody debris consisting of rootwads, logs, and large branches not suitable for construction of log structures shall be placed first with logs being placed in a crossing or weave such that each log is anchored by another log. No logs shall be placed parallel to the flow of water unless directed by the engineer.

Small woody debris shall be placed above the coarse woody debris and compacted with an excavator to reduce voids. Once woody debris has been placed and compacted a gravel leveling bed shall be placed to the highest elevation of the woody debris. Soil lifts shall then be constructed using soil free of large woody debris or root wads and compacted such that future settling will be kept to a minimum. Once compacted, place a layer of topsoil with the top of the first lift shall be sloped at approximately 5% away from the stream. Live branches shall be placed on top of each soil lift with 6" to 12" of of each live branch exposed and the remaining 2' to 4' of each branch covered by the next soil lift. Live branches shall be of the species noted for other live stakings to be used on site and shall meet the requirements of section 6.3.2. Place a layer 700G geocoir blanket on top of the topsoil and live branches, such that 2.5 feet of the blanket will be buried below the next soil lift. Allow the remaining blanket to overhang the preceding soil lift or coir fiber logs. Place a second layer of non-woven coir matting over the geocoir blanket to the same limits.

Place soil backfill up to the lift height of 6" to 12" or as directed by the engineer. The contractor shall take care not to tear the erosion control blanket or coir matting during installation. The top of the soil backfill for each lift shall be flat for a distance of approximately 5 feet and then sloped at an approximate 5% slope away from the stream. The soil lift shall be top dressed back in to the floodplain at least 4 feet. Erosion control fabric shall be pulled as tight as possible without tearing or excessively distorting the fabric and secured in place with 2"x 2" wooden stakes placed on 1.5 foot centers. This process shall be repeated for each successive lift with the fabric used for the upper most lift being secured in a 6" deep trench. The final slope created by the lifts and live branching shall match the proposed cross-section shape for the outer bank of the typical pool cross-section for each reach.

The surface of these structures shall be finished to a smooth and compact surface in accordance with the lines, grades, and cross-sections shown on the drawings. A tolerance of 0.1 ft is allowed.

#### **4.5.3 Method of Measurement**

"Toewood" shall be measured and paid for by linear foot (LF) of installed toewood as measured from station to station along centerline of the proposed reach. Live staking for this work shall be a subsidiary obligation of the lump sum vegetation quantity item. Geocoir fabric and matting shall be incidental to the toewood. Topsoil for placement in in the toewood shall be incidental to the per linear foot price of toewood.

#### **4.5.4 Basis of Payment**

The labor, equipment, placing, handling, fitting, and any additional items necessary to install the "Toewood", measured as provided above, will be paid for upon satisfactory completion of the constructed segment, as approved by the Engineer. The cost of procurement of live stake bundles are considered incidental to the lump sum installation of vegetation item.

## 4.6 LOG SILL STRUCTURE

### 4.6.1 Description

The work shall consist of installing and maintaining log drop structures with boulders as indicated in the plans. Log drop structures are to be installed in the restored reach of the tributary to D'Olive Creek. The log drop structures allow drop across a relatively steep channel will maintaining grade control along the profile of that channel. Footer logs are set beneath header logs to ensure flow does not undermine structure. Each structure is composed of two sets of footer and header logs, and the logs are placed such that they overlap, per details in the plans.

### 4.6.2 Materials

Logs used for log drop construction shall be obtained from onsite. Logs shall be straight and with nearly uniform diameter. The Contractor shall choose and harvest trees as approved by the Engineer. Multiple drop structures may be harvested from each tree. Appropriate length and diameter of each log sill shall be as specified in the plans or as determined by Engineer onsite.

### 4.6.3 Installation

Logs shall be cut from onsite trees to the appropriate length. A trench shall be excavated in the channel to a depth to accommodate the footer and header logs such that the top of the header is at proposed channel elevation. The footer log shall be set first in the trench. Header log is set above the footer log and slightly downstream so that the header log is not resting vertically on top of the footer. The downstream header log shall be set such that the upstream header log overlaps the downstream log. Given this, it is recommended to construct downstream to upstream for each drop structure. The logs shall be set such that the vertical slope of the logs will not exceed 6%, as shown in the plan details. Notching of logs may be necessary to ensure overlap while maintaining slopes and elevations. Any notching required shall be considered incidental to construction. All gaps shall be chinked with brush prior to installation of filter fabric. Woven geotextile filter fabric shall be installed on the upstream face of the log structures for the full length of the logs. Backfill trench with excavated material and compact to reduce extent of future settling. Nail filter fabric to the header log and complete backfill of structure. Redress channel and floodplain as needed after construction. Approximately six one-ton boulders shall be used per structure to anchor the logs. Stone shall be covered with soil during bank redress. Any channel redress will be considered incidental to the construction of the structure.

### 4.6.4 Method of Measurement

"Log Sill Structures" shall be measured and paid for at the unit price per each (EA) log drop structure installed. Each structure consists of the upstream log system (footer and header logs), downstream log system (footer and header logs), and six boulder anchors.

### 4.6.5 Basis of Payment

The "Log Drop Structures" will be paid for at the contract unit price per structure installed once approved by the Engineer. Filter fabric, additional materials, and all tools needed for installation will be incidental.

## 5 EROSION CONTROL

### 5.1 TEMPORARY CONSTRUCTION ENTRANCE

#### 5.1.1 TEMPORARY CONSTRUCTION ENTRANCE

##### Description

The work covered by this section consists of furnishing, installing, and maintaining and removing any and all material required for the construction of temporary construction entrance.

Initially, the Engineer shall coordinate with the landowner to determine the exact location of the construction entrances. The Contractor shall install construction entrances as located in the plans, or as instructed by the Engineer.

The Contractor shall maintain the construction entrance for the duration of the project. Upon completion of the project, the Contractor shall return the construction entrances to a condition that meets or exceeds its pre-construction condition. Additionally, repair of any erosion areas that have resulted from construction activities will be the responsibility of the Contractor.

#### 5.1.2 Materials

All rock shall meet the requirements of "select material" as described in "Installation" of this section. Filter fabric shall meet the requirements outlined under Section 5.3 – "Filter Fabric", or Engineer approved equivalent. If piping is required to maintain drainage, piping material must be submitted to the Engineer for approval.

#### 5.1.3 Installation

The Contractor shall install and maintain a temporary construction entrance in accordance with the details in the plans. An 8-inch minimum layer of ALDOT Coarse Aggregate No. 1 shall be placed for the first 50 linear feet on filter fabric. The rock shall be rolled or tamped to provide an even stable surface. Periodic top dressing will be required during the construction phase to maintain the construction entrance. Upon completion of the project, the Contractor shall return the construction entrance area to a condition that meets or exceeds the preconstruction conditions as directed by the Engineer.

#### 5.1.4 Method of Measurement

The quantity of "Temporary Construction Entrance" to be measured for payment shall be a lump sum entrance installed as shown in the plans and specifications and subsequently reclaimed.

#### 5.1.5 Basis of Payment

Fabric, select material, piping material, excavation, reclamation materials, and labor shall be considered incidental to the installation and reclamation of the "Temporary Construction Entrance."

Such price and payment shall be considered full compensation for all work covered by this provision including all materials, construction, maintenance, and removal of "Temporary Construction Entrance" as directed by the Engineer.

### 5.2 SILT FENCE

#### 5.2.1 Description

Silt fence shall be implemented to control sediment runoff throughout the project as shown on the plans or as directed by the Engineer.

#### 5.2.2 Materials

Furnish material, construct, maintain, and remove temporary silt fence in locations shown on the plans or in locations that require surface drainage to be filtered.

**Steel post:**

- Minimum 5 feet (1.5 meters) long.
- Minimum 1 3/8 inches (34.9 mm) wide measured parallel to the fence.
- Minimum weight of 1.25 lb/ft (1.86 kg/m) of length.
- Equipped with an anchor plate with minimum area of 14.0 square inches (9032.1 square mm).
- Have a means of retaining wire and fabric in the desired position without displacement.
- Posts shall be spaced no greater than 5 feet apart where runoff water ponds against the silt fence.

**Woven Wire Fence:**

Provide woven wire fence meeting the following requirements:

- Minimum 32 inches (812.8 mm) high.
- Minimum 5 horizontal wires.
- Vertical wires spaced 6 inches (152.4 mm) apart.
- Minimum 14 gage wires.

**Filter Fabric:**

Per specification (Sect. 5.3).

**Attachment Device:**

Provide No. 9 staple with a minimum length of 1 1/2 inches (38.1 mm) or other approved attachment device (e.g., plastic tie).

Substitutions may be proposed for Engineer approval.

**5.2.3 Installation**

Install in locations as shown on the plans or as directed. Install wire and fabric as shown in the plans. Attach filter fabric to the wire fence with wire or other acceptable methods. Ensure filter fabric is trenched into existing ground as shown in plans. Filter fabric shall overlap a minimum of 18 inches (457 mm) at splice joints. Install fabric that is free of defects, rips, holes, flaws, deterioration, or damage. Silt fence shall not be placed transverse to slopes, generally it is placed on contour (constant elevation) with each end of the fence turned up slope so as to pond water and promote settlement of sediment.

**5.2.4 Maintenance and Removal**

Maintain the silt fence until the project is accepted or until the fence is removed. Remove and replace deteriorated or ineffective filter fabric. Remove and dispose of silt accumulations appropriately. Leave silt fence in place until site stabilization and remove at project completion. Removed silt fence becomes the property of the contractor. Dress and seed and mulch all areas where silt fence is removed in accordance with the mulch and temporary and permanent seeding specifications.

**5.2.5 Method of Measurement**

Temporary "Silt Fence" will be measured by the linear foot (LF) as accepted in place, along the ground line of the fence. Removal and disposal of silt accumulations will be incidental. Seeding and mulching will be measured as provided in the seeding specification.

**5.2.6 Basis of Payment**

The labor, equipment, placing, handling, fitting, and any items additional items necessary to install the "Silt Fence", measured as provided above, will be paid for at the contract unit price per linear foot of silt fence. The cost of stakes, filter fabric, and any excavation are considered incidental to the installation of silt fence.

Payment will be made for quantities listed below. No revision in the contract unit price will be allowed because of any overrun or underrun.

### 5.3 FILTER FABRIC

#### 5.3.1 Description

Filter fabric in this specification shall be considered suitable for all instances where filter fabric is prescribed throughout the Plans and these Specifications, including, but not limited to, stabilized construction entrances, rock cross vanes, rock J-hooks, and silt fence.

#### 5.3.2 Materials

Filter fabric shall be ALDOT approved fabric meeting the requirements of AASHTO M-288. Geotextile used for silt fence shall be 3.5 oz. non-woven fabric designed use as silt fence. All other geotextile shall be 8 oz. non-woven class 2 fabric. Non-woven fabric shall be required for rock structure applications.

#### 5.3.3 Installation

Installation of filter fabric shall be as described in the appropriate detail or specification.

#### 5.3.4 Measurement

The quantity of filter fabric measured shall be per application and as described in those details and specifications.

**Table 5.4 – Temporary Seeding**

#### 5.3.5 Basis of Payment

Filter fabric shall be considered incidental to each application where it is utilized. No standalone payment shall be given for filter fabric.

### 5.4 TEMPORARY/SUPPLEMENTAL SEEDING

#### 5.4.1 Description

Temporary seeding options include winter wheat, rye, rye grain, and/or brown top millet, and period of construction and regional availability shall dictate type of seed used. Temporary seeding shall be cast at the rates provided in the following table.

Common Name	Casting Rate (lb/ac)	Planting Period
Winter Wheat	50	Sept – Feb
Rye	50	Sept – April
Rye Grain	50	Sept – April
Brown Top Millet	30	April – Sept

Engineer shall approve seed choice prior to Contractor purchase and application. Rye grass and non-native grasses or forbs shall not be used. Temporary seeding shall occur in all disturbed areas within the limits of disturbance. If the disturbed area is at final grade and ready for the final seeding, temporary seeding and permanent seeding (Section 6.9) will occur at the same time.

Temporary seeding will be carried out daily immediately following the completion of construction activities. All areas to be seeded shall also be mulched. Straw mulch is to be spread by hand, blower, or other suitable equipment. Temporary seeding shall occur in all planting zones.

Maintenance shall begin immediately after seeding operations and continue until Final Acceptance. Maintenance of seeded areas shall consist of watering, weed and pest control, fertilization, erosion repair, reseeding and incidental operations as necessary to establish a healthy, vigorous, weed free and disease free uniform stand of grasses and forbs. All areas that fail to show a uniform stand of herbaceous species for any reason shall be treated repeatedly until a uniform stand of at least 80% coverage is attained with no bare area greater than five square feet.

Fertilizer used for topdressing shall be 10–10–10 analysis and shall be applied at the rate of 100 pounds

per acre within the floodplain and upland areas. Upon written approval of the Engineer, a different analysis and application rate of fertilizer may be used provided the 10–10–10 ratio is maintained. Fertilizer application will correspond with the temporary seeding. Fertilizer application will be considered incidental to the Temporary Seeding pay item.

**5.4.2 Basis of Payment**

Payment for temporary seeding will be the quantity of ripping, fertilizer, seed, and various other items covered by this section. Payment will be paid for at the contract unit price per acre for “Temporary Seeding”. The above prices and payments will be full compensation for all materials, labor, equipment, and incidentals necessary to install temporary seeding.

**5.5 MULCH**

**5.5.1 Description**

Mulch shall be applied upon application of fertilizer, temporary seed, and permanent seed and prior to coir mat installation. Straw mulch shall consist of wheat, barley, oat or rye straw. Woody mulch should be sourced from native species and shall be free of invasive species to the project area. The mulch material shall be air dry, reasonably light in color, and shall not be musty, moldy, caked, or otherwise of low quality. The use of mulch that contains noxious weeds is not permitted. Mulch shall be applied at a rate of 35 tons per acre, or as otherwise required by the Engineer.

**5.5.2 Measurement**

The quantity of “Mulch” measured will be paid for according to the number of acres (AC), to the nearest 0.1 acre, to which “Mulch” is applied.

**5.5.3 Basis of Payment**

Payment for “Mulch” is made at the contract unit price for the designated treatment, which will constitute full compensation of the work.

**5.6 COIR FIBER MAT**

**5.6.1 Description**

Furnish materials, install, and maintain Coir Fiber Matting in locations shown on the construction plans or in locations as directed by the Engineer. Work includes providing all materials, excavating and backfilling, and placing and securing coir fiber matting.

Coir Fiber Matting will only be used in locations identified on the construction plans or specified by the Engineer.

**5.6.2 Materials**

**5.6.1.1 Matting** Provide Coir Fiber Matting to meet the following specifications:

**Table 5.6 – Coir Fiber Matting**

Physical Specification (Roll)	
Material	100% coir twine woven into high strength mat
Thickness	0.30 in
Tensile Strength (Dry)	1348 x 626 lb/ft
Elongation (Dry)	34% x 38%
Flexibility	65030 x 29590 mg/cm
Flow Velocity	Observed 11 ft/sec
Weight	20 oz/sy
Size	6.6 x 164 ft (120 sy)
“C” Factor	0.002
Open Area (measured)	50%

### **5.6.1.2 Stakes**

Provide stakes made of a biodegradable material with a hook to anchor matting. Stakes shall be installed to no less than 2 foot spacing and as indicated in the Details.

### **5.6.3 Installation**

Install the Coir Fiber Matting immediately upon final grading. Provide a smooth soil surface free from rocks, clods, or debris that will prevent the contact of the matting with the soil. Apply mulch, temporary seed, and permanent seed mix prior to installing matting. Coir Fiber Matting shall be installed in the areas as shown in the construction plans. Begin installation at the top of the slope by anchoring the top of the matting in a 6-inch deep by 6-inch wide trench. Backfill and compact the trench after staking with 5 evenly spaced stakes. Install matting in the direction of flow. Install matting in full contact with the soil such that there are no creases in the matting. The edges of the parallel matting must be staked with approximately 6 inches of overlap such that the edge of the downstream matting is under the one just up-slope. When matting must be spliced down the slope, install matting end-over-end (shingle style) with approximately 6 inches of overlap. Stake matting according to detail. Install stakes along the outer edges, down the center of each strip of matting and along all lapped edges approximately 2 feet apart. Excess matting shall be trimmed anchored and trenched.

The Engineer may require adjustments in the trenching or staking requirements to fit individual site conditions. If the matting separates from the soil by more than an inch under a reasonable pull, additional staking will be necessary at no additional cost.

### **5.6.4 Measurement**

The quantity of "Coir Fiber Matting" measured will be paid for according to the actual number of square yards (SY) measured along the surface of the ground over which the "Coir Fiber Matting" is installed and accepted by the Engineer.

### **5.6.5 Basis of Payment**

The quantity of coir fiber matting, measured as provided above, will be paid for at the contract unit price per square yard (SY) for "Coir Fiber Matting". The cost of the stakes, nails, and trenching is considered incidental to the various items involved in the construction of the matting.

Such price and payment will be full compensation for all work covered by this section, including but not limited to furnishing, placing, stabilizing, staking, and maintaining coir fiber matting.

## **5.7 PUMP AROUND OPERATION**

### **5.7.1 Description**

The work shall consist of furnishing, installing, maintaining, and removing any and all pump-around operation systems used on the project for diverting stream flow for the purposes of isolating work areas when construction activities take place within the stream channel. The Contractor shall install pump-around operation systems in locations chosen by the Contractor and approved by the Engineer.

### **5.7.2 Materials**

- Sandbags and rip rap. Sandbags shall consist of materials, which are resistant to ultraviolet radiation, tearing and puncture, and woven tightly enough to prevent leakage of fill material. The downstream end shall discharge onto a stable velocity dissipator made of rip rap.
- Sheeting. Sheeting shall consist of polyethylene plastic, which is impervious and resistant to puncture and tearing.
- Pump. Pump shall be large enough to maintain uninterrupted base flow to the channel downstream of the work area. The pump around shall include a hose suitable to convey water overland to the downstream section. Minimum linear feet of hose required is equivalent to the maximum estimate

for one workday provided by the Contractor. The pump shall be shut off at night and baseflow shall flow through the completed portion of the project into the existing downstream channel.

### **5.7.3 Installation**

The diversion structure shall be installed from upstream to downstream. The height of the sand bag/rip rap diversion structure shall be a minimum of one half the distance from stream bed to top of stream bank plus one foot, or two-foot height minimum. Sheeting shall overlap the sandbags such that the upstream portion covers the downstream sandbag face with at least an 18-inch overlap.

Install a rip rap stabilized outlet and velocity dissipater to control the effluent from pumping operations. Filter fabric shall be used underneath all rip rap effluent controls.

Once work is complete in an area, the pump system shall be removed. Structures shall be placed and stabilized immediately (e.g., seeded and mulched) following removal of a pump around operation system.

### **5.7.4 Measurement**

“Pump Around Operation” will be measured as each (EA) placement of pump system and shall include multiple installations and removals of the entire system. Sand bag and/or rip rap and outlet structures will be incidental to the cost of the “Pump Around Operation”

### **5.7.5 Basis of Payment**

The process and payments will be full compensation for all work covered by this section including, but not limited to, furnishing all of the necessary materials, construction, maintenance, and removal of the “Pump Around Operation”.

## **6 VEGETATION**

A serious effort shall be made to retain and protect existing specimen vegetation that is well established, healthy and appropriately sited outside the extents of construction as directed by the Engineer or Ecologist.

### **6.1 SPECIFICATIONS FOR THE ESTABLISHMENT OF VEGETATION**

It is mandatory that the contractor or subcontractor provide a Planting Supervisor that has one of the following credentials: Certified Landscape Technician, Certified Plant Professional, Certified Forester, or Registered Landscape Contractor, or otherwise approved by. The Engineer will consider other ecologists with strong academic credentials (e.g., MS or PhD in Ecology) or relevant experience. The appropriate certification or registration information will be provided to the Engineer or Owner in the bid package at the bid opening. Bid proposals will be reviewed for the required credentials.

The Planting Supervisor will be responsible for managing and being on site during all activities involving permanent planting, including but not limited to the following: site preparation for planting, exotic plant removal, seedling handling and storage, planting operations, quality control inspections, and managing plant competition. Activities associated with permanent planting that are not supervised by the Planting Supervisor or his/her agent are not to be approved for payment.

The construction contractor shall warrant an 85 percent survival rate for one year from the time of planting against defects including mortality and poor growth, except for defects resulting from abuse by other parties and abnormal weather conditions (based on the annual rainfall greater than the 90% exceedance probability). Supplemental watering of seeded areas and new vegetation may be necessary to ensure germination, health, and survival of installed plants. The amount, type, and duration of supplemental watering is not specified for this project, but is considered incidental to the items in this section. Supplemental watering by the Contractor is suggested by the Designer to help ensure revegetation success. Failure to meet the survival warranty will result in reseeded and/or replanting at the Contractor’s expense.

### **6.2 PERMANENT SEEDING**

#### **6.2.1 Description**

Permanent seeding will be required for all disturbed areas within limits of disturbance, which include but are not limited to: below bankfull elevation on the stream banks, the riparian areas, and floodplain areas.

Only certified weed-free seed shall be allowed. Lime and Fertilizer shall also be required in areas to be seeded or vegetated.

Permanent seeding shall occur in conjunction with temporary seeding where applicable. Ideally, permanent seeding shall occur during the planting season. Regardless, permanent seeding shall occur when project areas are at finished grade, or as directed by the Engineer.

### 6.2.2 **Materials**

The permanent seeding mix shall be a mix of native plant species and shall include both grass and flowering forbs. The mix shall include both wetland and meadow varieties that can thrive in the specific USDA plant hardiness zone in which the project is located. No non-native species shall be included in the mix. The contractor shall provide detailed information including, but not limited to, % Pure Live Seed (PLS), germination rates, % noxious weed seed, and date and location of harvest on each seed mix. The Engineer must approve seed mix and application rate prior to purchase and seeding. The following table includes recommended species and composition:

Table 6.1 Recommended Permanent Seeding

Percentage	Species List
18	Beaked Panicgrass, GA Ecotype ( <i>Panicum anceps</i> , GA Ecotype)
15	Redtop Panicgrass, Coastal Plain NC Ecotype ( <i>Panicum rigidulum</i> ( <i>P. stipitatum</i> ), Coastal Plain NC Ecotype)
15	Virginia Wildrye, GA Ecotype ( <i>Elymus virginicus</i> , GA Ecotype)
15	River Oats, Coastal Plain NC Ecotype ( <i>Chasmanthium latifolium</i> ( <i>Uniola latifolia</i> ), Coastal Plain NC Ecotype)
10	Switchgrass, 'Carthage', NC Ecotype ( <i>Panicum virgatum</i> , 'Carthage', NC Ecotype)
5	Winter Bentgrass, Piedmont NC Ecotype ( <i>Agrostis hyernalis</i> , Piedmont NC Ecotype)
5	Partridge Pea, FL Ecotype ( <i>Chamaecrista fasciculata</i> ( <i>Cassia</i> f.), FL Ecotype)
3	Slender Woodoats, NC Ecotype ( <i>Chasmanthium laxum</i> ( <i>Uniola laxa</i> ), NC Ecotype)
2	Boneset, FL Ecotype ( <i>Eupatorium perfoliatum</i> , FL Ecotype)
2	Joe Pye Weed, AL Ecotype ( <i>Eupatorium fistulosum</i> , AL Ecotype)
2	Mistflower, FL Ecotype ( <i>Eupatorium coelestinum</i> ( <i>Conoclinium</i> c.), FL Ecotype)
2	Swamp (Narrowleaf) Sunflower, AL Ecotype ( <i>Helianthus angustifolius</i> , AL Ecotype)
2	Leathery Rush, Coastal Plain NC Ecotype ( <i>Juncus coriaceus</i> , Coastal Plain NC Ecotype)
2	Common Sneezeweed, FL Ecotype ( <i>Helenium autumnale</i> , FL Ecotype)
1	Crimson-eyed Rosemallow, 'Suther'-Piedmont NC Ecotype ( <i>Hibiscus moscheutas</i> , 'Suther'-Piedmont NC Ecotype)
1	New York Ironweed, 'Suther'-Piedmont NC Ecotype ( <i>Vernonia noveboracensis</i> , 'Suther'-Piedmont NC Ecotype)

### 6.2.3 **Seedbed Preparation and Seed Application**

The Contractor shall loosen the sub-grade to a minimum depth of 4 inches and graded to a smooth even surface with a loose, uniformly fine texture. The areas to be seeded are then to be rolled and raked to remove any ridges and fill depressions that are greater than +/-0.2 ft to meet finish grades. The Contractor is to limit sub grade and finish grade preparation to areas that will be planted immediately. Prepared areas are to be moistened prior to seeding when soil is dry but care shall be taken not to create muddy conditions. Prepared areas are to be restored if eroded or otherwise disturbed after final grading and before planting.

Seed shall be sown with a spreader or a seeding machine at a rate of 20 pounds per acre or as advised by the vendor for the specific seed mix chosen. Seed is not to be broadcast or dropped when wind velocity exceeds 10 mph. Seed shall be evenly distributed by sowing in two directions at right angles to each other. Wet seed or seed that is moldy or otherwise damaged in transit or storage is not to be used. After

being sown, the seed shall be raked into the top 1/4 inch of the topsoil, lightly rolled, and watered with fine spray. Seeded areas on stream banks shall be protected with coir fiber matting. Other seeded areas are to be protected by spreading straw mulch uniformly to form a continuous blanket over seeded areas. Straw mulch is to be spread by hand, blower, or other suitable equipment. Fertilizer used for topdressing shall be 10 – 10 – 10 analysis and shall be applied at the rate of 100 pounds per acre prior to seeding. Upon written approval of the Engineer, a different analysis and application rate of fertilizer may be used provided the 10 – 10 – 10 ratio is maintained. Fertilizer application will correspond with the permanent seeding.

#### **6.2.4 Method of Measurement**

The quantity of “Permanent Seeding” to be paid for will be the actual number of acres (AC), to the nearest 0.1 acre, which has been permanently seeded, as accepted by the Engineer. Fertilizer, mulch, supplemental watering, coir fiber matting, or other materials and labor necessary for the establishment of permanent vegetation are considered incidental and may be accounted for in other sections.

#### **6.2.5 Basis of Payment**

The quantity of permanent seeding, measured as provided for above, will be paid for at the contract unit price per acre for “Permanent Seeding”. The above prices and payments will be full compensation for all materials, labor, equipment, and incidentals necessary to install permanent seeding.

### **6.3 LIVE STAKES**

#### **6.3.1 Description**

The work covered by this section consists of furnishing, installing and maintaining live stakes as shown on the plans or in locations as directed by the Engineer. Work includes providing all materials necessary to install the live stake cuttings. Live stakes shall be planted in Zone 1 (within stream banks).

#### **6.3.2 Materials**

Live staking plant material shall consist of a combination of the following species at the following count:

**Table 6.3 Live Stakes**

Species Name	Common Name	Count
Cornus Amomum	Silky Dogwood	9,116
Salix sericea	Silky Willow	9,116
Sambucus canadensis	Elderberry	9,116

All plant material shall be harvested locally (within the same physiographic ecoregion and plant hardiness zone) or purchased from a verifiable local source. All live stakes shall be dormant at time of acquisition and planting. Live stakes should be installed between December 15 and February 15. Typically, cuttings are installed after spring thaw but before bud break, or in fall after leaves change color and/or fall. Live stakes shall be 1/2-2” in diameter and 2 - 3 feet in length. During preparation, the basal ends of the live stakes shall be cleanly cut at an angle to facilitate easy insertion into the soil, while the tops shall be cut square or blunt for tamping. All limbs shall be removed from the sides of the live cutting prior to installation. See details for additional information.

#### **6.3.3 Installation**

Cuttings for live stakes shall be harvested in manner such that they are cut, immediately put into water to be soaked for ten days, and then planted immediately after the ten days are completed. Cuttings shall remain wet until they are planted. Outside storage locations should be continually shaded and protected from wind and direct sunlight.

Live stakes shall be tamped perpendicularly into the finished bank slope with a dead blow hammer, with buds oriented in an upward direction. Stakes should be tamped until approximately ¾ of the stake length is within the ground. A dibble bar or piece of rebar may be used to create a pilot hole, if needed.

The area around each live stake shall be compacted by foot after the live stake has been installed. Stakes shall be spaced approximately 3 feet on center, random spacing. Live stakes should be installed according to the configuration presented in the details of the final plan sheets. One to two inches shall be cut cleanly off of the top of each live stake (with loppers) at an angle of approximately 15 degrees following installation. Any stakes that are split or damaged during installation shall be removed and replaced.

Areas where live stakes have been installed will be well-watered immediately following successful installation.

#### **6.3.4 Method of Measurement**

The quantity of live staking measured and accepted, will be paid for at the contract unit bid price per each (EA) live stake installed and accepted for "Live Staking."

#### **6.3.5 Basis of Payment**

The quantity of live staking, measured as provided above, will be paid for at the contract unit price per each for "Live Staking". The above prices and payments will be considered full compensation for all work covered by this Section, including but not limited to furnishing and installing all live stakes.

### **6.4 BARE ROOT VEGETATION**

#### **6.4.1 Description**

The work covered by this section consists of installing and maintaining, for the duration of construction activities, Bare Root Vegetation (including plugs and grass plugs) in locations as directed by the Engineer. Work includes providing all materials necessary to install the vegetation. Bare root plant materials shall be planted in Zones 2 (within stream banks), 3 (floodplain surface), and 4 (side slopes and terrain above floodplain surface), at locations prescribed in the field by the Engineer. Plugs shall be planted in zone 1, and grass plugs planted in zone 4.

#### **6.4.2 Materials**

The Contractor shall provide plant materials in accordance with the plant list shown below.

##### Zone 1

Quantity	Botanical Name	Common Name	Specification
11476	Juncus Sp. (plugs)	Juncus	Plugs
11476	Carex Sp. (plugs)	Carex	Plugs
46 lbs		Permanent Seed Mix(See Table)	Seed

##### Zone 2

Quantity	Botanical Name	Common Name	Specification
9116	Salix sericea	Silky Willow	Live Stake
9116	Sambucus nigra	Elderberry	Live Stake
20351	Saurus cernuus	Lizard's Tail	Plugs
20351	Sagittaria latifolia	Common Arrowhead	Plugs
20351	Pontederia cordata	Pickerelweed	Plugs
20351	Canna flaccida	Golden Canna	Plugs
9116	Cornus amomum	Silky Dogwood	Live Stake
285 lbs		Permanent Seed Mix(See Table)	Seed

## Zone 2A

Quantity	Botanical Name	Common Name	Specification
737	Taxodium distichum	Bald Cypress	Bare Root
737	Nyssa sylvatica	Blackgum	Bare Root
47 lbs		Permanent Seed Mix(See Table)	Seed

## Zone 3

Quantity	Botanical Name	Common Name	Specification
1842	Magnolia virginiana	Sweetbay Magnolia	Bare Root
1842	Magnolia Granidflora	Southern Magnolia	Bare Root
1842	Persea borbonia	Redbay	Bare Root
1842	Acer rubrum	Red Maple	Bare Root
1842	Pinus Taeda	Loblolly Pine	Bare Root
1842	Ilex vomitoria	Yaupon Holly	Bare Root
1842	Ilex opaca	American Holly	Bare Root
1842	Cephalanthus occidentalis	Buttonbush	Bare Root
1842	Itea virginica	Virginia Sweetspire	Bare Root
1842	Myrica cerifera	Wax Myrtle	Bare Root
1842	Vaccinium arboreum	Sparkleberry	Bare Root
1842	Liquidambar styraciflua	American Sweetgum	Bare Root
1842	Callicarpa americana (bare root)	American Beautyberry	Bare Root
10229	Panicum Virgatum	Switchgrass	Grass Plugs
10229	Sorghastum nutans	Indiangrass	Grass Plugs
10229	Schizachyrium scoparium	Little Bluestem	Grass Plugs
10229	Muhlenbergia capillaris	Hairawn Muhly	Grass Plugs
599 lbs		Permanent Seed Mix(See Table)	Seed

## Zone 4

Quantity	Botanical Name	Common Name	Specification
437	Magnolia virginiana	Sweetbay Magnolia	Bare Root
437	Magnolia granidflora	Southern Magnolia	Bare Root
437	Acer rubrum	Red Maple	Bare Root
437	Ilex vomitoria	Yaupon Holly	Bare Root
437	Ilex opaca	American Holly	Bare Root
437	Pinus taeda	Loblolly Pine	Bare Root
437	Myrica cerifera	Wax Myrtle	Bare Root
437	Callicarpa americana (bare root)	American Beautyberry	Bare Root
88 lbs		Permanent Seed Mix(See Table)	Seed

**6.4.3 Installation**

The Contractor shall provide a 2-week notice to the Engineer stating that the Contractor shall have the area to finished grade, the man power, and equipment available to plant. Installation of bare roots shall occur during the dormant period (late fall to early spring). However, no planting shall be done when the temperature is below 32°F, when the soil to be excavated for the plant hole is frozen, when the sides or bottom of the plant hole are frozen, or when the soil to be used for backfilling is frozen. In planting or

otherwise handling plants, the Contractor shall exercise utmost care and use adequate precautions to prevent injury to or drying out of the trunk, branches, or roots, and to prevent freezing of the plant roots. If construction occurs in the late fall, installation of bare root plants should occur the following winter or spring upon completion of construction.

Soil that is compacted in the area of shrub and tree planting shall be deep ripped as outlined within Section 2.3 (Grading) of this document. During planting, seedlings shall be kept cool and moist at all times. The planting hole shall be made with a dibble bar. Seedlings should be planted to a depth such that the plant root collar is located at the existing surface elevation. During installation, the plant stem shall remain upright. Care should be used to ensure that roots do not j-hook, ball, or otherwise deform while planting.

Trees are to be planted 8' on center, random spacing, and approximately 680 stems per acre. Specific planting locations will be determined in the field by the Engineer.

#### **6.4.4 Method of Measurement**

The quantity of bare root installation measured and accepted, will be paid for at the contract unit bid price per acre (AC), to the nearest 0.1 acre, installed and accepted for "Bare Root Installation".

#### **6.4.5 Basis of Payment**

The quantity of bare root installation measured as provided above, will be paid for at the contract unit price per each acre of "Bare Root Installation". The above prices and payments will be considered full compensation for all work covered by this Section, including but not limited to purchasing and installing all Bare Root plants.

## **7 Invasive Species Management and Control**

### **7.1 Invasive Species management**

#### **7.1.1 Description**

The work covered by this section consists of identification, removal, and continual treatment necessary for the eradication of invasive species within the project site as shown in the plans or directed by the Engineer. Work includes providing all labor, equipment, and materials necessary to mechanically remove or treat target invasive species on site.

The contractor shall refer to the "Three Mile Creek Watershed Invasive Species Control Plan" Dated 4/9/2019 for treatment of additional invasive species not specifically identified in the project plans. [http://www.mobilebaynep.com/images/uploads/library/MBNEP\\_ThreeMileCreek\\_report\\_040919\\_FINAL\\_web.pdf](http://www.mobilebaynep.com/images/uploads/library/MBNEP_ThreeMileCreek_report_040919_FINAL_web.pdf)

#### **7.1.2 Materials**

Materials for spray treatment include specialized herbicides (Clearcast, Arsenal AC, Glyphosphate, Garlon 3A-4, etc.) which are designated for the removal of target species. All herbicides shall be used in accordance with manufacturers and regulatory requirements. Equipment for broadcast applications include backpack sprayers and hand sprayers. Nozzles for sprayers shall be set such that only the target species is treated. Accidental treatment of native vegetation will be restored at no expense to the project.

#### **7.1.3 Installation and application**

Application of herbicides and pesticides under this contract shall be performed by an individual permitted in the State of Alabama for the commercial application of herbicides and pesticides. At a minimum the contractor shall have certification in ground, aquatic, seed treatment, and wood treatment.

Application shall be by the means indicated in the plans for known target species. Invasive species not specifically noted in the plans shall be treated as directed in the "Three Mile Creek Watershed Invasive Species Control Plan".

#### **7.1.4 Method of Measurement**

#

“Invasive Species Management and Control” will not be measured but will be paid for at the Contract lump sum (LS) price. Maintenance treatments shall be performed quarterly or as directed by the manufacturer for the target species for twenty-four (24) months from the date of project completion and considered a subsidiary obligation of the lump sum item.

**7.1.5 Basis of Payment**

Compensation for “Invasive Species Management and Control” will be paid for at the lump sum contract price. The above price and payments will be considered full compensation for all work covered by this Section, including but not limited to the initial treatment and 24 months of maintenance.

**POST-CONSTRUCTION SURVEY****7.2 AS-BUILT SURVEY**

The As-Built Survey shall be performed by a Professional Land Surveyor registered in Alabama.

**7.2.1 Description**

1. Surveyor must coordinate with Engineer prior to commencing work.
2. Surveyor will verify or establish horizontal and vertical control for the project prior to commencement of work.
3. Surveyor will provide a Topographic Survey (including DTM with 1 foot contour map) of the Limits of Disturbance.
4. Breaklines should be placed within the DTM file to represent the top, toe, and thalweg of the bankfull channel, as well as toe and top of bench excavation.
5. Surveyor will provide DTM survey along all swales and ditches.
6. Surveyor will ensure all above ground improvements are located in the field.
7. Provide location of underground utilities and recorded easements, including but not limited to sanitary sewer, storm sewer, fiber optic lines, etc.
8. All mapping will be provided to Engineer in AutoCAD format.
9. At a minimum, the Surveyor is responsible for collecting and producing the following data:
  - Clear delineation of these boundary features:
    - Top and toe of bank and terrace.
    - Channel boundary - shots along the stream channel shall be sufficient enough to map the pattern of the channel as it appears on the ground.
    - At a minimum, shots along the meander bend shall be taken at the PC and PT points, as well as the mid-point and quarter points of the curve.
    - Additional shots along the meander bend may be necessary such that the shots are spaced approximately 1/3 of the designed bankfull width, enough shots shall be obtained to fit a curve along the top, toe, and thalweg.
    - Bankfull
    - Thalweg (deepest part of channel)
    - Excavated floodplain
    - Beginning and ending of riffle
    - Beginning, ending, and maximum depth of deep pool
    - Easement boundary (if applicable)
    - Fencing (if applicable)
    - Existing tree/woods line (if proximal)
    - Locate bedrock outcroppings or any other channel hardening structures (both natural and manmade) that are located within the channel and within the project limits.
  - All structures and utilities within the conservation easement (if applicable):
    - Bridges

- Crossings
  - Buildings
  - Utility poles or pipes (sewer, stormwater outfalls)
  - Project features (if applicable)
    - Tributary confluence
    - Surface water (wetlands)
    - Natural stream or remaining active components of ditch network (wetlands)
  - Project specific structures, engineering, earthwork, planting zones (if applicable):
    - Grade control
    - Instream structures (*i.e.*, J-hooks, boulders, logs, etc.)
    - Constructed riffles
  - Project station numbers along the thalweg (10+00 etc.)
  - Additional features that Engineer flags may include (if applicable):
    - Pool and riffle cross sections
    - Begin and end longitudinal profile
    - Benchmarks
    - Photo stations
    - Vegetation plots
    - Gauges/Wells
  - Inset coordinate tables for monitoring features
  - Topography with a boldness/transparency level sufficient not to interfere with clear visual interpretation of the other plan boundaries and features. Proper legend and iconic representation of all applicable features from above.
10. As-Built survey will depict all topography within the construction limits.
11. Surveyor will provide a sealed As-Built survey map, of such quality that features are clearly visible and legible, and the map shall be drawn to a reasonable scale.

The Engineer may check all or any portion of the work, and the Contractor shall afford all necessary assistance to the Engineer in carrying out such checks. The Contractor shall immediately make any necessary corrections to the work. Such checking by the Engineer shall not relieve the Contractor of any responsibilities for the accuracy or completeness of the work.

#### **7.2.2 Basis of Payment**

Payment at the contract Lump Sum (LS) price for "As-Built Survey" will be made for providing a sealed hard copy of the As-Built Survey and a digital copy of the survey in AutoCAD format, or Engineer approved software.

#

**8 QUANTITIES ESTIMATE**

2.1	Mobilization	LS	1
2.2	Construction Stakeout & Geometric Controls	LS	1
2.3	Clearing and Grubbing	AC	46
2.4	Construction Access	LS	1
3.2	Unclassified Excavation and Grading	CY	273,650
4.2	Rock Cross Vane	EA	2
4.3	Rock Floodplain Sill	LF	100
4.4	Constructed Bolder Riffle	EA	2
4.5	Wood Toe	LF	3,560
4.6	Log Sill	EA	18
5.1	Stabilized Construction Entrance	EA	1
5.2	Silt Fence	LF	5,742
5.5	Mulch	AC	42
5.6	Coir Fiber Mat	SY	106,654
5.7	Pump Around Operation	LS	1
6.2	Permanent Seeding	AC	65
6.3	Live Stakes	EA	27,348
6.4	Bare Root Vegetation	AC	42
6.5	Solid Sodding	SY	13,000
7.1	Invasive Species Removal	LS	1
7.2	As-Built Survey	LS	1
--	Allowance for NPDES Permit Fee	LS	1

**APPENDIX D**

**Bon Secour River Constructed Wetlands**

Report of Geotechnical Exploration



## Report of Geotechnical Exploration

**Proposed Bon Secour Constructed Wetlands**  
Barner Road  
Foley, Alabama  
GeoCon Project No. DL 1676-19

Prepared For:  
**Volkert, Inc.**  
Mr. Andy James  
Post Office Box 7434  
Mobile, Alabama 36670

Date: May 13, 2019

Prepared By:  
GeoCon Engineering & Materials Testing, Inc.  
22885 McAuliffe Drive  
Robertsdale, Alabama 36567



May 13, 2019

**Volkert, Inc.**

Post Office Box 7434  
Mobile, Alabama 36670

Attn: Mr. Andy James, P.E.

**RE: Report of Subsurface Exploration**

Proposed Bon Secour Constructed Wetlands  
Foley, Alabama  
GeoCon Project No. DL 1676-19

Dear Mr. James:

GeoCon Engineering & Materials Testing, Inc. is pleased to submit this report of subsurface exploration for the above referenced project. Included in this report are the results of the field exploration and soil classification testing. Our scope of work has been performed in general accordance with our signed proposal and our earlier discussions with you.

**Purpose of Exploration**

The subject site is located along the east side of Barner Road in Foley, Alabama. The attached Site Location Map (Figure 1) shows the location of the site. We understand that the purpose of this subsurface exploration was to determine the soil types and ground water elevations at the site.

**Subsurface Exploration**

Soil conditions were investigated by drilling twenty (20) soil test borings to depths of about 20 to 40 feet below the existing ground surface. Ten (10) hand auger borings were also extended to a depth of about 4 feet along the wetland area on the east side of the site. Five (5) temporary piezometer wells were installed at selected areas across the site to allow for future ground water level monitoring. The borings were located in the field by GeoCon engineering personnel with the intent of uniformly covering the site with test borings. The general boring locations are shown on the attached Test Location Plan (Figure 2). We understand that Volkert's survey crew marked the locations of the test borings and we have noted the GPS coordinates of the hand auger borings on their respective boring logs.

The samples were visually classified in the field, placed in containers and transported to our laboratory for further testing and review by our engineering staff. Samples will be retained at our lab for a period of 60 days after the date of this report. If no written instructions are given to GeoCon, we will discard the samples after 60 days.

### **Characteristics of Soils Encountered**

**Soil Test Borings.** The majority of the site has been utilized as an agricultural field for many years and exhibited about 12 to 18 inches of topsoil material. Below the topsoil, the borings generally encountered cohesive clayey sand (SC) and sandy clay (CL) soils to depths of about 10 to 20 feet. Below the upper strata of cohesive soils, the borings generally encountered a layer of silty sand (SM) followed by sand with silt and sand (SP-SM and SP) soils to boring termination at depths of 20 to 40 feet below the existing ground surface. The depths of the soil strata varied across the site and the subsurface soils encountered at each boring are described in more detail on the attached Test Sounding Logs.

**Hand Auger Borings.** Ten (10) hand auger borings were located along the east side of the site in the wetland areas. The hand auger borings encountered dark gray silty sand and fine grained sand soils typical of Alluvium soils. Alluvium soils are dark color material that are deposited by water movement over time.

### **Ground Water Conditions Encountered**

Temporary piezometer wells were installed at borings B-1, B-5, B-10, B-11 and B-16 to allow for future ground water level monitoring. The remaining bore holes were allowed to remain open for additional ground water level monitoring. Note that the piezometer wells were installed due to the possibility of the open bore holes caving in over time and not allowing for accurate ground water observations. The Observed Ground Water Table attached in the appendix indicates the ground water levels at the boring locations at different time periods. The ground water levels indicated on the attached boring logs are the depths ground water was encountered during drilling. Ground water conditions are subject to seasonal variations and are expected to fluctuate in response to local variations in precipitation and drainage conditions.

### **Laboratory Testing**

The soil samples taken from the sampler were visually classified in general accordance with the guidelines of ASTM D-2487 Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System). The quantity and type of laboratory tests performed for this geotechnical study were determined and adjusted by GeoCon engineering personnel based on the uniformity and character of the subsurface soil conditions encountered and our experience and knowledge of local soil conditions.

Laboratory soil tests were performed to aid in the classification of the soils. Representative soil samples recovered from the soil test borings were selected for grain-size analysis (10 tests) and Atterberg limit determination (10 tests). The below table provides summary of the classification tests and details of the test are shown on the attached Particle Size Distribution Reports.

## Summary of Classification Testing

Boring No.	Depth (ft)	Soil Description	Soil Classification	% Passing 200 (fines)	PI
B-1	6-8	Clayey Sand	SC	44%	8
B-5	14-16	Silty Sand	SM	12%	0
B-10	4-6	Silty Sand	SM	25%	0
B-10	6-8	Silty Sand	SM	33%	2
B-10	16-18	Sand	SP	4%	0
B-14	4-6	Silty-Clayey Sand	SC-SM	36%	7
HA-1	2.5	Silty Sand	SM	36	2
HA-4	4	Silty Sand	SM	21	0
HA-8	2	Silty-Clayey Sand	SC-SM	33	4
HA-10	2	Silty Sand	SM	22	2

**Closure**

This report has been prepared in accordance with generally accepted current standards of geotechnical engineering practices. The evaluations contained in this report are based on the information gathered from the twenty (20) soil test borings and ten (10) hand auger borings at the above referenced site. This report does not incorporate potential variations in soil conditions that may exist between the sounding locations.

We appreciate the opportunity to have provided you with our geotechnical engineering services. If you have any questions concerning this report, or if we can be of any further assistance, please contact our office.

Sincerely,

**GeoCon, Inc.**

  
**Jason J. Christian, P.E.**  
 Geotechnical Engineer





Figure 1

NOT TO SCALE

**SITE LOCATION MAP**

Proposed Bon Secour Wetland Cons  
 Barner Road  
 Foley, Alabama  
 DL 1676-19

**GEOCON, INC.**

22885 McAuliffe Drive  
 Robertsdale, Alabama 36567

Date

4/10/2019

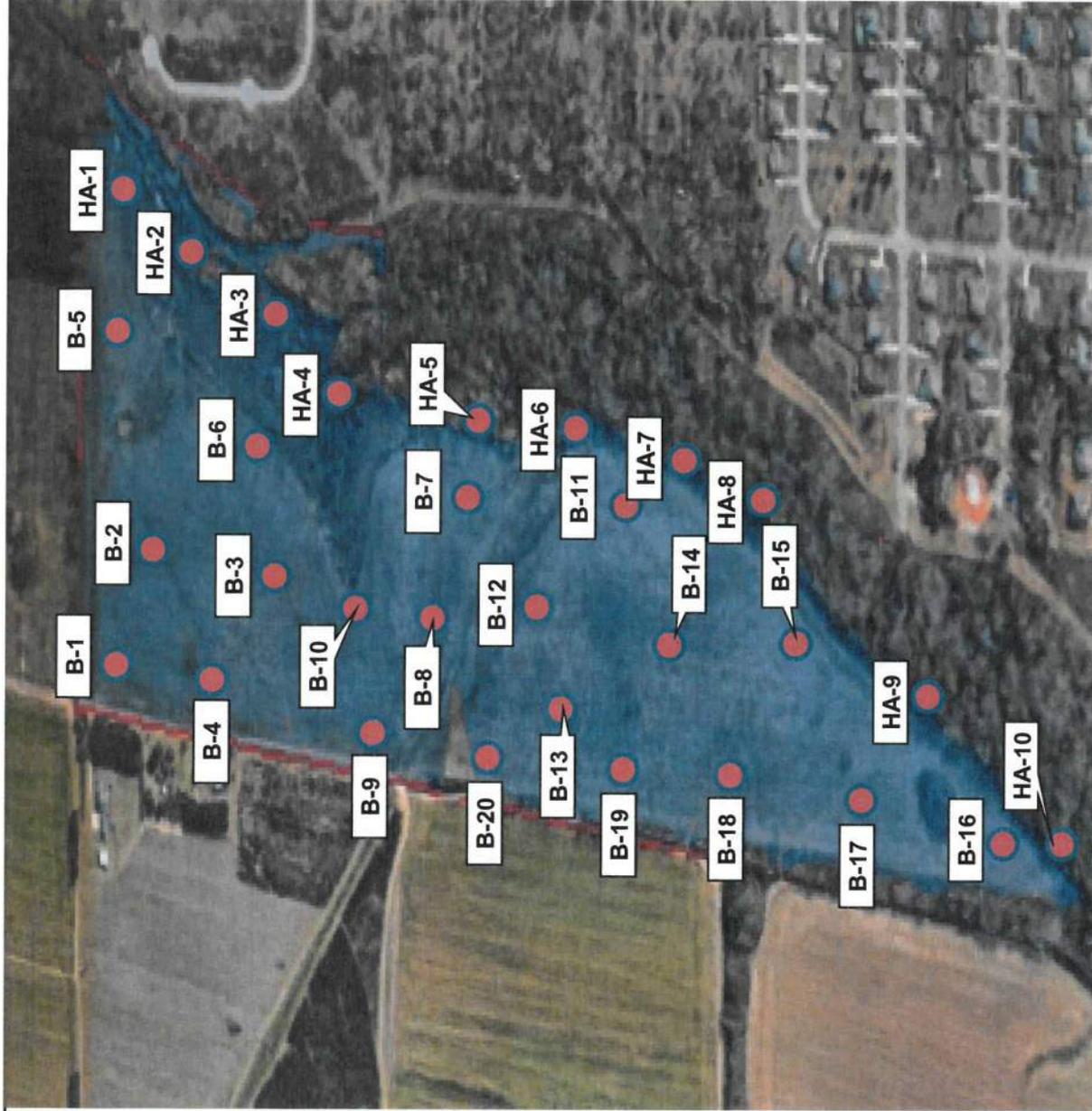


Figure 2

NOT TO SCALE  
**SOUNDING LOCATION PLAN**  
Proposed Bon Secour Wetland Construction

**GEOCON, INC.**  
22885 McAuliffe Drive  
Robertsdale, Alabama 36567

Date  
4/10/2019

Foley, Alabama  
DL 1676-19

**Proposed Bon Secour Wetland Construction (DL 1676-19)**  
**Observed Ground Water Levels**

Boring #	4/16/2019	4/17/2019	4/23/2019	5/9/2019
B-1/Piez	22'	*	20'	20'
B-2	14'	N/A	Caved at 13'	N/A
B-3	14'	N/A	Caved at 14'	N/A
B-4	18.5'	N/A	Caved at 18.5'	N/A
B-5/Piez	14'	15'	14'	14.25'
B-6	2'	N/A	Caved at 2'	Caved at 2'
B-7	2'	N/A	Caved at 1'	N/A
B-8	3'	N/A	3'	N/A
B-9	10.5'	N/A	10.5'	N/A
B-10/Piez	8.5'	6'	8.5'	7.25'
B-11/Piez	3.5'	2.75'	3.5'	3.75'
B-12	6.5'	N/A	6.5'	N/A
B-13	8.5'	N/A	8.5'	9.5'
B-14	6.5'	N/A	Caved at 1.5'	Caved at 1'
B-15	2'	N/A	2'	N/A
B-16/Piez	2.5'	2'	2.5'	4'
B-17	6'	N/A	6'	N/A
B-18	9'	N/A	9'	N/A
B-19	11.5'	N/A	11.5'	N/A
B-20	9'	N/A	Caved at 8.5'	N/A
HA-1	1.5'	1.5'	N/A	N/A
HA-2	1'	1'	N/A	N/A
HA-3	3.5'	6"	N/A	N/A
HA-4	4'	1'	N/A	N/A
HA-5	2.5'	1'	N/A	N/A
HA-6	3'	1.5'	N/A	N/A
HA-7	3'	1'	N/A	N/A
HA-8	3'	2'	N/A	N/A
HA-9	3'	1.5'	N/A	N/A
HA-10	3'	1.5'	N/A	N/A

Notes: N/A = did not check this day.

\*The piezometer at B-1 appeared to have trapped water at a depth of 7 feet and was not an accurate GW level on this day

Depths of feet below the ground surface

# DRILL HOLE LOG

BORING NO.: B-1

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Charles Carroll  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL  $\nabla$  : 22

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST			
							DEPTH	N	CURVE	
								10	30	50
0				18 Inches Organic Topsoil						
6			SC	Red Clayey Sand						
12										
18										
24		 $\nabla$	SP-SM	Light Tan Sand with Silt Ground Water at 22 ft						
30										
36										
42				Boring Terminated at 40 ft						

This information pertains only to this boring and should not be interpreted as being indicative of the site.

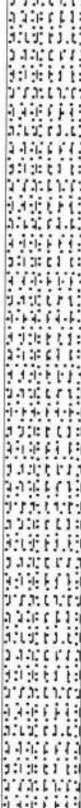
# DRILL HOLE LOG

BORING NO.: B-2

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Charles Carroll  
 DRILL RIG:  
 DEPTH TO WATER > INITIAL  $\nabla$  : 14

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST			
							DEPTH	N	CURVE	
								10	30	50
0				18 Inches Organic Topsoil						
			SC	Tan Clayey Sand						
6			CL	Orange Sandy Clay						
12			SC-SM	Tan Silty-Clayey Sand						
			SP-SM	Ground Water at 14 ft Tan Sand with Silt						
18										
24										
30										
36										
42				Boring Terminated at 40 ft						

This information pertains only to this boring and should not be interpreted as being indicative of the site.

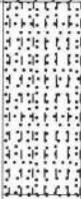
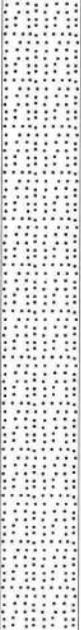
# DRILL HOLE LOG

BORING NO.: B-3

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Charles Carroll  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL  $\nabla$  : 14

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST		
							DEPTH	N	CURVE
									10 30 50
0				18 Inches Organic Topsoil					
			SC	Tan Clayey Sand					
6			CL	Tan, Orange Sandy Clay					
12			SP-SM	Light Orange Sand with Silt Ground Water at 14 ft					
18			SP	Tan Sand					
24									
30									
36									
42				Boring Terminated at 40 ft					

This information pertains only to this boring and should not be interpreted as being indicative of the site.

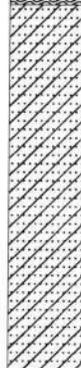
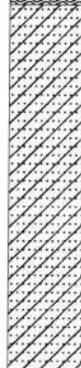
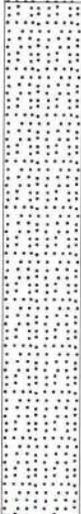
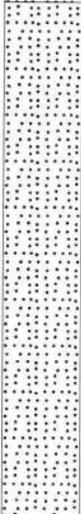
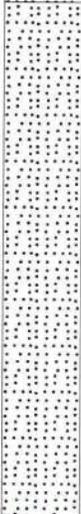
# DRILL HOLE LOG

BORING NO.: B-4

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Charles Carroll  
 DRILL RIG:  
 DEPTH TO WATER > INITIAL  $\nabla$  : 18.5

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST			
							DEPTH	N	CURVE	
								10	30	50
0				18 Inches Organic Topsoil						
			SC	Tan Clayey Sand						
6			SC	Red Clayey Sand						
12			SM	Orange Silty Sand						
18				Ground Water at 18.5 ft						
			SP-SM	Tan Sand with Silt						
24			SP	Tan Sand						
30										
36										
42				Boring Terminated at 40 ft						

This information pertains only to this boring and should not be interpreted as being indicative of the site.

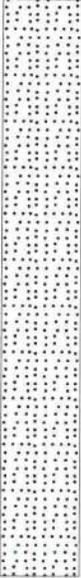
# DRILL HOLE LOG

BORING NO.: B-5

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Charles Carroll  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL  $\nabla$  : 14

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST			
							DEPTH	N	CURVE	
								10	30	50
0				18 Inches Organic Topsoil						
			SC	Red Clayey Sand						
6										
			SM	Red Silty Sand						
12										
				Ground Water at 14 ft						
			SP-SM	Orange Sand with Silt						
18										
			SP	Tan Sand						
24										
30										
36										
42				Boring Terminated at 40 ft						

This information pertains only to this boring and should not be interpreted as being indicative of the site.

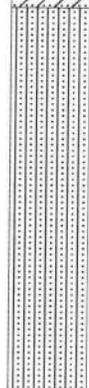
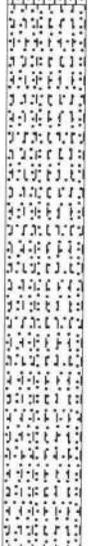
# DRILL HOLE LOG

BORING NO.: B-6

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Charles Carroll  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL  $\nabla$  : 2

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST			
							DEPTH	N	CURVE	
								10	30	50
0				18 Inches Organic Topsoil						
			SC	Gray Clayey Sand Ground Water at 2 ft						
6										
12			SM	Red Silty Sand						
18										
24			SP-SM	Tan Sand with Silt						
30										
36										
42				Boring Terminated at 40 ft						

This information pertains only to this boring and should not be interpreted as being indicative of the site.

# DRILL HOLE LOG

BORING NO.: B-7

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Charles Carroll  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL  $\nabla$  : 2

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST		
							DEPTH	N	CURVE
									10   30   50
0				12 Inches Organic Topsoil					
3		 $\nabla$	SC	Tan Clayey Sand Ground Water at 2 ft					
6			SC	Gray Clayey Sand					
9									
12									
15			SP-SM	Tan, Gray Sand with Silt					
18									
21				Boring Terminated at 20 ft					

This information pertains only to this boring and should not be interpreted as being indicative of the site.

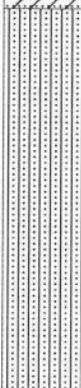
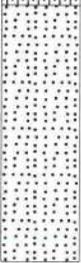
# DRILL HOLE LOG

BORING NO.: B-8

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Charles Carroll  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL  $\nabla$  : 3

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST			
							DEPTH	N	CURVE	
								10	30	50
0				18 Inches Organic Topsoil						
3	$\nabla$		SC	Gray Clayey Sand						
				Ground Water at 3 ft						
6										
9			SM	Tan Silty Sand						
12										
15			SP	Red Sand						
18										
21				Boring Terminated at 20 ft						

This information pertains only to this boring and should not be interpreted as being indicative of the site.

# DRILL HOLE LOG

BORING NO.: B-9

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Charles Carroll  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL : 10.5

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST		
							DEPTH	N	CURVE
									10   30   50
0				18 Inches Organic Topsoil					
			SC	Gray, Tan Clayey Sand					
6			SM	Red Silty Sand					
				Ground Water at 10.5 ft					
12			SP-SM	Red Sand with Silt					
18			SP	Tan Sand					
24									
30									
36									
42				Boring Terminated at 40 ft					

This information pertains only to this boring and should not be interpreted as being indicative of the site.

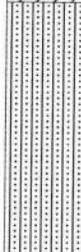
# DRILL HOLE LOG

BORING NO.: B-10

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Charles Carroll  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL  $\nabla$  : 8.5

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST			
							DEPTH	N	CURVE	
								10	30	50
0				12 Inches Organic Topsoil						
			CL	Gray, Tan Sandy Clay						
3			SM	Tan Silty Sand						
6			CL	Red Sandy Clay						
9				Ground Water at 8.5 ft						
			CL	Tan Sandy Clay						
12			SM	Red Silty Sand						
15			SP	Orange Sand						
18				Boring Terminated at 20 ft						
21										

This information pertains only to this boring and should not be interpreted as being indicative of the site.

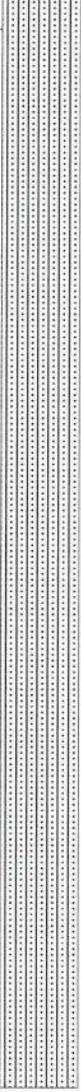
# DRILL HOLE LOG

BORING NO.: B-11

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Charles Carroll  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL  $\nabla$  : 3.5

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST		
							DEPTH	N	CURVE
									10   30   50
0				12 Inches Organic Topsoil					
			CL	Tan Sandy Clay					
3			SM	Gray Silty Sand Ground Water at 3.5 ft					
6			SM	Light Gray Silty Sand					
9									
12									
15									
18									
21				Boring Terminated at 20 ft					

This information pertains only to this boring and should not be interpreted as being indicative of the site.

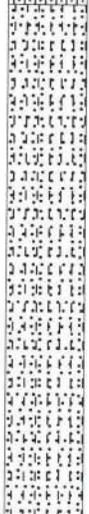
# DRILL HOLE LOG

BORING NO.: B-12

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Charles Carroll  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL  $\nabla$  : 6.5

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST			
							DEPTH	N	CURVE	
								10	30	50
0				12 Inches Organic Topsoil						
3			SC	Orange Clayey Sand						
6		 $\nabla$	CL	Red, Tan Sandy Clay Ground Water at 6.5 ft						
9										
12			SM	Orange Silty Sand						
15			SP-SM	Tan Sand with Silt						
18										
21				Boring Terminated at 20 ft						

This information pertains only to this boring and should not be interpreted as being indicative of the site.

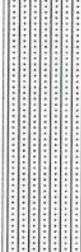
# DRILL HOLE LOG

BORING NO.: B-13

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Charles Carroll  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL  $\nabla$  : 8.5

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST		
							DEPTH	N	CURVE
									10    30    50
0				12 Inches Organic Topsoil					
			CL	Tan Sandy Clay					
6			SC	Red Clayey Sand					
				Ground Water at 8.5 ft					
12			SP	Red Sand with Clay Layers					
18			SM	Tan Silty Sand					
24			SP-SM	Red Sand with Silt					
30			SP-SM	Tan Sand with Silt					
36									
42				Boring Terminated at 40 ft					

This information pertains only to this boring and should not be interpreted as being indicative of the site.

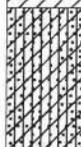
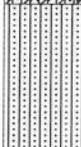
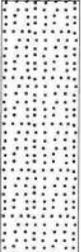
# DRILL HOLE LOG

BORING NO.: B-14

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Charles Carroll  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL  $\nabla$  : 6.5

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST			
							DEPTH	N	CURVE	
								10	30	50
0				12 Inches Organic Topsoil						
			CL	Tan Sandy Clay						
3										
			SC-SM	Tan Silty-Clayey Sand						
6										
				Ground Water at 6.5 ft						
9										
			SM	Red Silty Sand						
12										
			SP	Light Tan Sand						
15										
18										
21				Boring Terminated at 20 ft						

This information pertains only to this boring and should not be interpreted as being indicative of the site.

# DRILL HOLE LOG

BORING NO.: B-15

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Charles Carroll  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL  $\nabla$  : 2

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST			
							DEPTH	N	CURVE	
								10	30	50
0				12 Inches Organic Topsoil						
			CL	Tan Sandy Clay						
		$\nabla$		Ground Water at 2 ft						
3										
			SC	Gray Clayey Sand						
6										
			SC-SM	Light Gray Silty-Clayey Sand						
9										
12										
15										
18										
21				Boring Terminated at 20 ft						

This information pertains only to this boring and should not be interpreted as being indicative of the site.

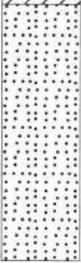
# DRILL HOLE LOG

BORING NO.: B-16

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Charles Carroll  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL  $\nabla$  : 2.5

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST			
							DEPTH	N	CURVE	
								10	30	50
0				12 Inches Organic Topsoil						
3		 $\nabla$	CL	Tan Sandy Clay  Ground Water at 2.5 ft						
6			SC	Light Gray, Tan Clayey Sand						
9			CL	Light Gray Sandy Clay						
12										
15										
18			SP	Light Gray Fine Sand with Clay Layers						
21				Boring Terminated at 20 ft						

This information pertains only to this boring and should not be interpreted as being indicative of the site.

# DRILL HOLE LOG

BORING NO.: B-17

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Charles Carroll  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL  $\nabla$  : 6

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST		
							DEPTH	N	CURVE
									10   30   50
0				12 Inches Organic Topsoil					
3			CL	Tan Sandy Clay					
6	$\nabla$			Ground Water at 6 ft					
9			SC	Gray, Tan Clayey Sand					
12			CL	Tan Sandy Clay					
15			SM	Red Silty Sand					
18									
21				Boring Terminated at 20 ft					

This information pertains only to this boring and should not be interpreted as being indicative of the site.

# DRILL HOLE LOG

BORING NO.: B-18

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Charles Carroll  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL  $\nabla$  : 9

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST			
							DEPTH	N	CURVE	
								10	30	50
0		[Symbol: Horizontal Wavy Lines]		12 Inches Organic Topsoil						
		[Symbol: Diagonal Hatching]	CL	Tan Sandy Clay						
6		[Symbol: Diagonal Hatching]	SC	Red Clayey Sand						
		[Symbol: Inverted Triangle]		Ground Water at 9 ft						
12		[Symbol: Stippled]	SP-SM	Orange Sand with Silt						
18		[Symbol: Stippled]								
24		[Symbol: Stippled]	SP	Orange Sand						
30		[Symbol: Stippled]								
36		[Symbol: Stippled]								
42		[Symbol: Stippled]		Boring Terminated at 40 ft						

This information pertains only to this boring and should not be interpreted as being indicative of the site.

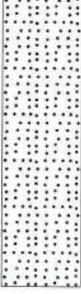
# DRILL HOLE LOG

BORING NO.: B-19

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Charles Carroll  
 DRILL RIG:  
 DEPTH TO WATER > INITIAL  $\nabla$  : 11.5

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST		
							DEPTH	N	CURVE
									10   30   50
0				12 Inches Organic Topsoil					
			CL	Tan Sandy Clay					
6									
				Ground Water at 11.5 ft					
12			SC	Orange Clayey Sand					
			SP-SM	Tan Sand with Silt					
18									
24									
30									
			SP	Orange Sand					
36									
42				Boring Terminated at 40 ft					

This information pertains only to this boring and should not be interpreted as being indicative of the site.

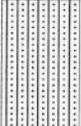
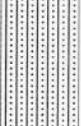
# DRILL HOLE LOG

BORING NO.: B-20

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Charles Carroll  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL  $\nabla$  : 9

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST		
							DEPTH	N	CURVE
									10    30    50
0				12 Inches Organic Topsoil					
3			CL	Tan Sandy Clay					
6									
9		$\nabla$		Ground Water at 9 ft					
12			SM	Tan Silty Sand					
15			SM	Red Silty Sand					
18									
21				Boring Terminated at 20 ft					

This information pertains only to this boring and should not be interpreted as being indicative of the site.

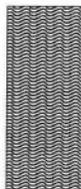
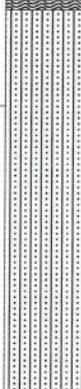
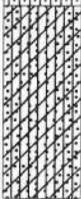
# DRILL HOLE LOG

BORING NO.: HA-1

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Richard Merritt  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL  $\nabla$  : 1.5

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST			
							DEPTH	N	CURVE	
								10	30	50
0				12 Inches Organic Topsoil						
1			SM	Dark Gray Silty Sand						
		$\nabla$		Ground Water at 1.5 ft						
2										
3			SC-SM	Dark Gray Silty-Clayey Sand						
4				Boring Terminated at 4 ft						
5										
6										
7										

GPS: 30 23.081 -87 42.282

This information pertains only to this boring and should not be interpreted as being indicative of the site.

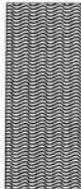
# DRILL HOLE LOG

BORING NO.: HA-2

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Richard Merritt  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL  $\nabla$  : 1

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST			
							DEPTH	N	CURVE	
								10	30	50
0				12 Inches Organic Topsoil						
1	$\nabla$		SC-SM	Dark Gray Silty-Clayey Sand Ground Water at 1 ft						
2										
3										
4				Boring Terminated at 4 ft						
5										
6										
7										

GPS: 30 23.029 -87 42.342

This information pertains only to this boring and should not be interpreted as being indicative of the site.

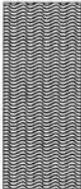
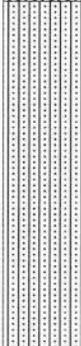
# DRILL HOLE LOG

BORING NO.: HA-3

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Richard Merritt  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL  $\nabla$  : 3.5

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST		
							DEPTH	N	CURVE
									10    30    50
0				12 Inches Organic Topsoil					
1			SM	Dark Gray Silty Sand with Clay Layers					
2									
3			SM	Gray Silty Sand					
4	$\nabla$			Boring Terminated at 4 ft					
5									
6									
7									

GPS: 30 22.980 -87 42.371

This information pertains only to this boring and should not be interpreted as being indicative of the site.

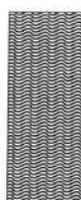
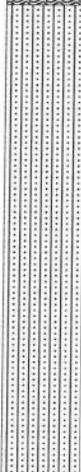
# DRILL HOLE LOG

BORING NO.: HA-4

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Richard Merritt  
 DRILL RIG:  
 DEPTH TO WATER > INITIAL  $\nabla$  : 4

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST			
							DEPTH	N	CURVE	
								10	30	50
0				12 Inches Organic Topsoil						
1			SM	Gray Silty Sand						
2										
3			SM	Light Gray Silty Sand						
4				Boring Terminated at 4 ft						
5										
6										
7										

GPS: 30 22.930 -87 42.404

This information pertains only to this boring and should not be interpreted as being indicative of the site.

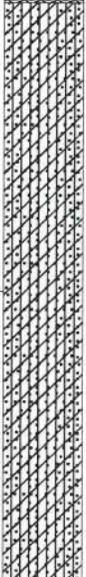
# DRILL HOLE LOG

BORING NO.: HA-5

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Richard Merritt  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL  $\nabla$  : 2.5

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST			
							DEPTH	N	CURVE	
								10	30	50
0				12 Inches Organic Topsoil						
1			SC-SM	Gray, Brown Silty-Clayey Sand						
2										
3		$\nabla$		Ground Water at 2.5 ft						
4				Boring Terminated at 4 ft						
5										
6										
7										

GPS: 30 22.790 -87 42.352

This information pertains only to this boring and should not be interpreted as being indicative of the site.

# DRILL HOLE LOG

BORING NO.: HA-6

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Richard Merritt  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL : 3

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST			
							DEPTH	N	CURVE	
								10	30	50
0				12 Inches Organic Topsoil						
1			ML	Gray Sandy Silt						
2										
3			SM	Gray Silty Sand						
4				Boring Terminated at 4 ft						
5										
6										
7										

GPS: 30 22.752 -87 42.368

This information pertains only to this boring and should not be interpreted as being indicative of the site.

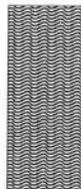
# DRILL HOLE LOG

BORING NO.: HA-7

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Richard Merritt  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL  $\nabla$  : 3

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST		
							DEPTH	N	CURVE
									10   30   50
0				12 Inches Organic Topsoil					
1			SC-SM	Dark Gray Silty-Clayey Sand					
2									
3		$\nabla$							
4				Boring Terminated at 4 ft					
5									
6									
7									

GPS: 30 22.697 -87 42.371

This information pertains only to this boring and should not be interpreted as being indicative of the site.

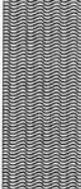
# DRILL HOLE LOG

BORING NO.: HA-8

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Richard Merritt  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL  $\nabla$  : 3

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST		
							DEPTH	N	CURVE
									10   30   50
0				12 Inches Organic Topsoil					
1			SC-SM	Dark Gray Silty-Clayey Sand					
2									
3	$\nabla$			Ground Water at 3 ft					
4				Boring Terminated at 4 ft					
5									
6									
7									

GPS: 30 22.656 -87 42.388

This information pertains only to this boring and should not be interpreted as being indicative of the site.

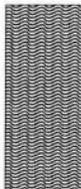
# DRILL HOLE LOG

BORING NO.: HA-9

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Richard Merritt  
 DRILL RIG:  
 DEPTH TO WATER> INITIAL  $\nabla$  : 3

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

AT COMPLETION  $\nabla$  :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST			
							DEPTH	N	CURVE	
								10	30	50
0				12 Inches Organic Topsoil						
1			SC-SM	Dark Gray Silty-Clayey Sand						
2										
3		$\nabla$		Ground Water at 3 ft						
4				Boring Terminated at 4 ft						
5										
6										
7										

GPS: 30 22.551 -87 42.444

This information pertains only to this boring and should not be interpreted as being indicative of the site.

# DRILL HOLE LOG

BORING NO.: HA-10

PROJECT: Proposed Bon Secour Wetland Construction  
 CLIENT: Volkert  
 LOCATION: Foley, AL  
 DRILLER: Richard Merritt  
 DRILL RIG:

PROJECT NO.: DL 1676-19  
 DATE: 4/16/2019  
 ELEVATION:  
 LOGGED BY: Jason Christian

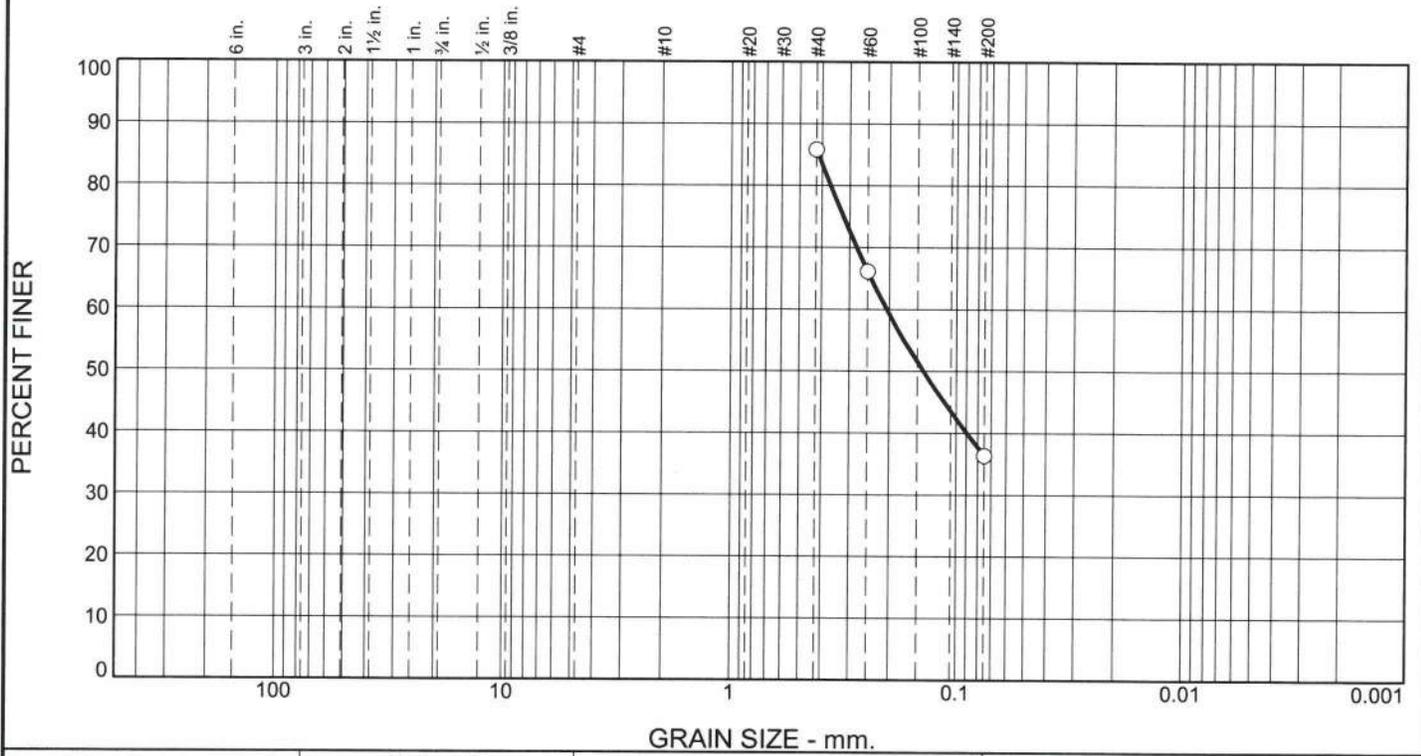
DEPTH TO WATER> INITIAL : 3 AT COMPLETION :

ELEVATION/ DEPTH	WELL DETAIL	SOIL SYMBOLS, SAMPLERS AND TEST DATA	USCS	Description	NM	DD	STANDARD PENETRATION TEST		
							DEPTH	N	CURVE
									10   30   50
0				12 Inches Organic Topsoil					
1			SM	Dark Gray Silty Sand					
2									
3				Ground Water at 3 ft					
4				Boring Terminated at 4 ft					
5									
6									
7									

GPS: 30 22.497 -87 42.482

This information pertains only to this boring and should not be interpreted as being indicative of the site.

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					49.4		36.4

TEST RESULTS			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
#40	85.8		
#60	66.2		
#200	36.4		

**Material Description**

Tan Silty-Clayey Sand

**Atterberg Limits (ASTM D 4318)**

PL= 16                      LL= 23                      PI= 7

**Classification**

USCS (D 2487)= SC-SM    AASHTO (M 145)=

**Coefficients**

D<sub>90</sub>=                      D<sub>85</sub>= 0.4164                      D<sub>60</sub>= 0.2054  
D<sub>50</sub>= 0.1408                      D<sub>30</sub>=                      D<sub>15</sub>=  
D<sub>10</sub>=                      C<sub>u</sub>=                      C<sub>c</sub>=

Remarks

---

Date Received:                      Date Tested: 5/1/2019

Tested By: DR

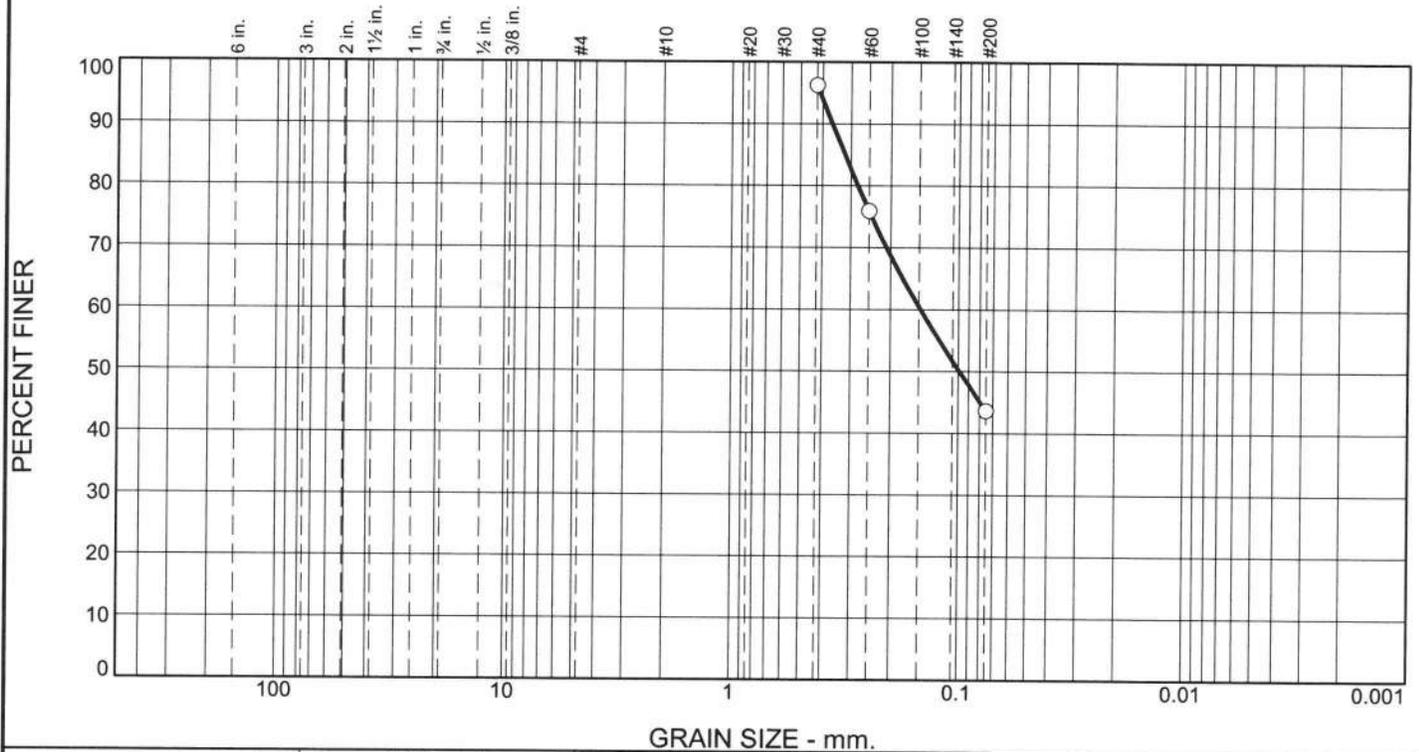
Checked By: JJC

Title: \_\_\_\_\_

\* (no specification provided)

<b>Location:</b> Foley, AL <b>Sample Number:</b> B-14	<b>Depth:</b> 4-6'	<b>Date Sampled:</b>
<h2 style="margin: 0;">GeoCon</h2> <h3 style="margin: 0;">Robertsdale, Alabama</h3>	<b>Client:</b> Volkert <b>Project:</b> Proposed Bon Secour Wetland Construction <b>Project No:</b> DL 1676-19	
		<b>Figure</b>

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					52.6		43.6

TEST RESULTS			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
#40	96.2		
#60	75.9		
#200	43.6		

\* (no specification provided)

**Material Description**

Red Clayey Sand

**Atterberg Limits (ASTM D 4318)**

PL= 19                      LL= 27                      PI= 8

**Classification**

USCS (D 2487)= SC                      AASHTO (M 145)=

**Coefficients**

D<sub>90</sub>= 0.3634                      D<sub>85</sub>= 0.3197                      D<sub>60</sub>= 0.1478  
D<sub>50</sub>= 0.0988                      D<sub>30</sub>=                                      D<sub>15</sub>=  
D<sub>10</sub>=                                      C<sub>u</sub>=                                      C<sub>c</sub>=

Remarks

---

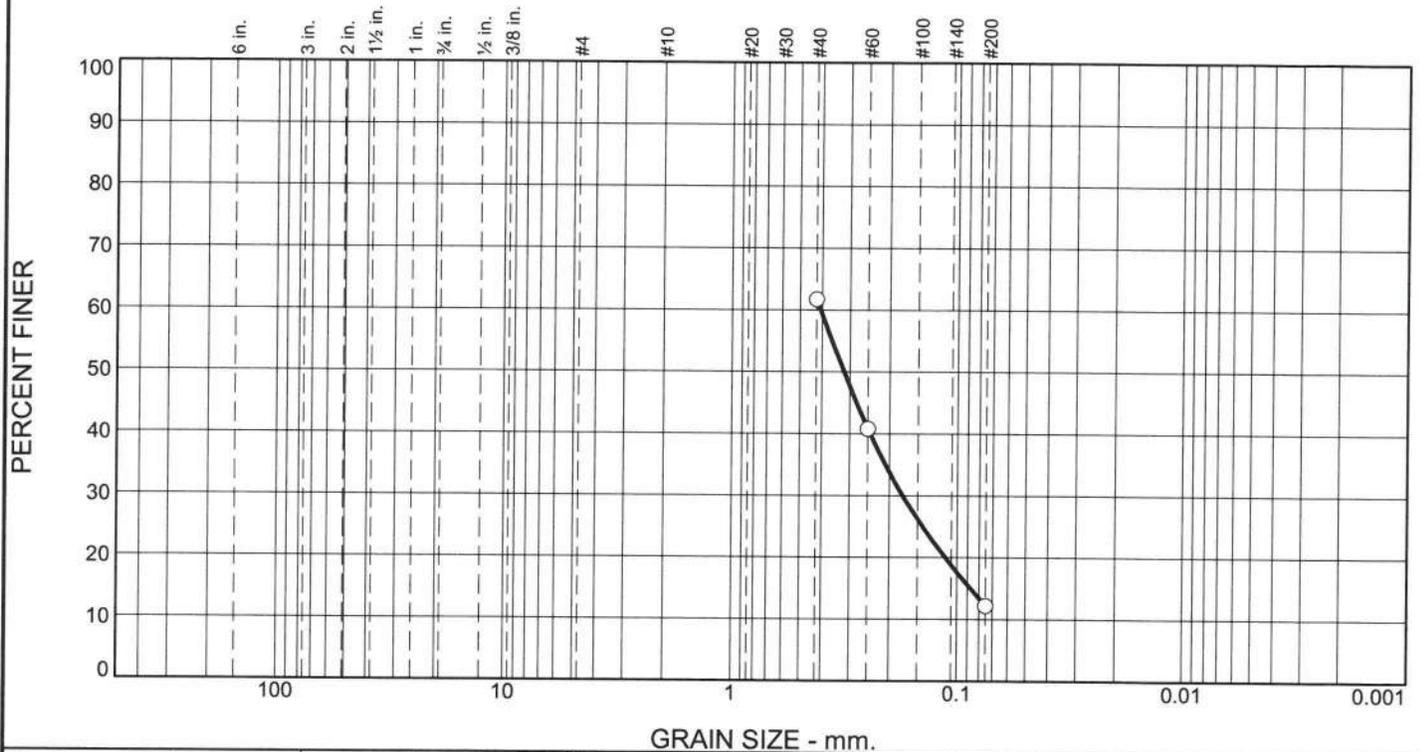
Date Received:                                      Date Tested: 5/1/2019

Tested By: DR

Checked By: JJC

Title: \_\_\_\_\_

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					49.5		12.2

TEST RESULTS			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
#40	61.7		
#60	40.8		
#200	12.2		

\* (no specification provided)

**Material Description**

Red Silty Sand

**Atterberg Limits (ASTM D 4318)**

PL= 12                      LL= 12                      PI= 0

**Classification**

USCS (D 2487)= SM                      AASHTO (M 145)=

**Coefficients**

D<sub>90</sub>=                      D<sub>85</sub>=                      D<sub>60</sub>= 0.4077  
D<sub>50</sub>= 0.3194              D<sub>30</sub>= 0.1747              D<sub>15</sub>= 0.0873  
D<sub>10</sub>=                      C<sub>u</sub>=                      C<sub>c</sub>=

Remarks


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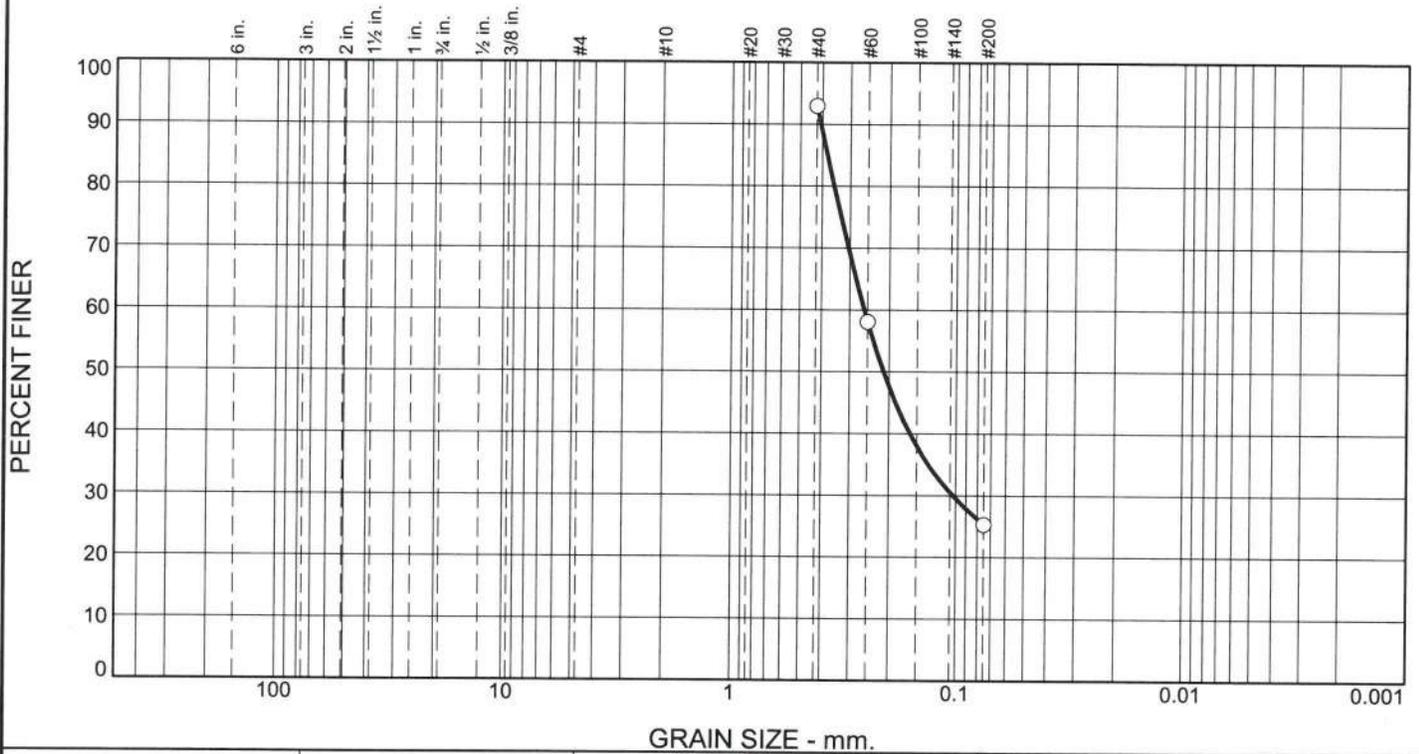
Date Received: \_\_\_\_\_                      Date Tested: 5/1/2019

Tested By: DR \_\_\_\_\_

Checked By: JJC \_\_\_\_\_

Title: \_\_\_\_\_

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					67.7		25.3

TEST RESULTS			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
#40	93.0		
#60	58.1		
#200	25.3		

\* (no specification provided)

**Material Description**

Tan Silty Sand

**Atterberg Limits (ASTM D 4318)**

PL= 12                      LL= 12                      PI= 0

**Classification**

USCS (D 2487)= SM                      AASHTO (M 145)=

**Coefficients**

D<sub>90</sub>= 0.4077                      D<sub>85</sub>= 0.3801                      D<sub>60</sub>= 0.2588  
D<sub>50</sub>= 0.2116                      D<sub>30</sub>= 0.1030                      D<sub>15</sub>=  
D<sub>10</sub>=                                      C<sub>u</sub>=                                      C<sub>c</sub>=

Remarks

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Date Received:                      Date Tested: 5/1/2019

Tested By: DR \_\_\_\_\_

Checked By: JJC \_\_\_\_\_

Title: \_\_\_\_\_

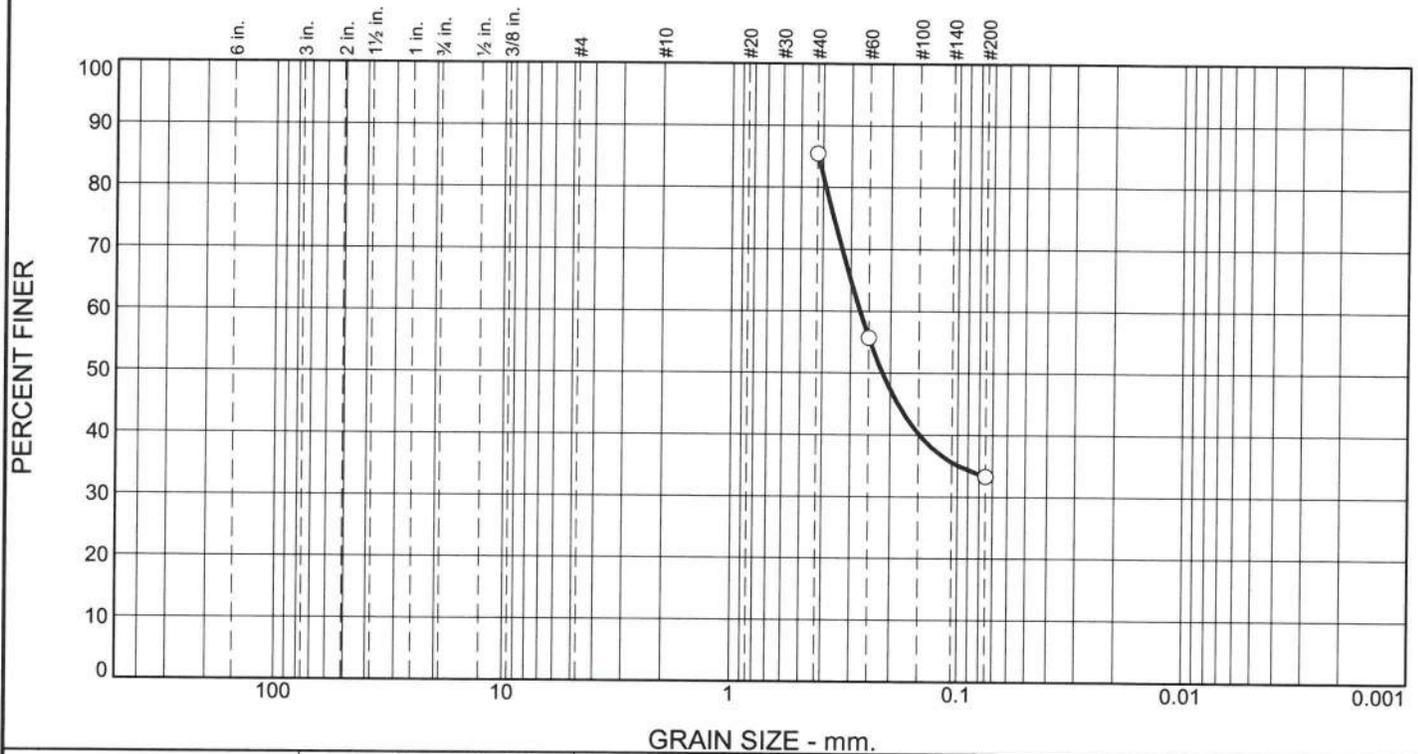
Location: Foley, AL                      Depth: 4-6'

Date Sampled:

<p style="font-size: 1.2em; margin: 0;"><b>GeoCon</b></p> <p style="font-size: 1.2em; margin: 0;"><b>Robertsdale, Alabama</b></p>	<p><b>Client:</b> Volkert</p> <p><b>Project:</b> Proposed Bon Secour Wetland Construction</p> <p><b>Project No:</b> DL 1676-19</p>
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**Figure**

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					52.2		33.3

TEST RESULTS			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
#40	85.5		
#60	55.7		
#200	33.3		

\* (no specification provided)

**Material Description**

Tan Silty Sand

**Atterberg Limits (ASTM D 4318)**

PL= 14                      LL= 16                      PI= 2

**Classification**

USCS (D 2487)= SM                      AASHTO (M 145)=

**Coefficients**

D<sub>90</sub>=                      D<sub>85</sub>= 0.4219                      D<sub>60</sub>= 0.2736  
D<sub>50</sub>= 0.2168                      D<sub>30</sub>=                      D<sub>15</sub>=  
D<sub>10</sub>=                      C<sub>u</sub>=                      C<sub>c</sub>=

Remarks

---

Date Received:                      Date Tested: 5/1/2019

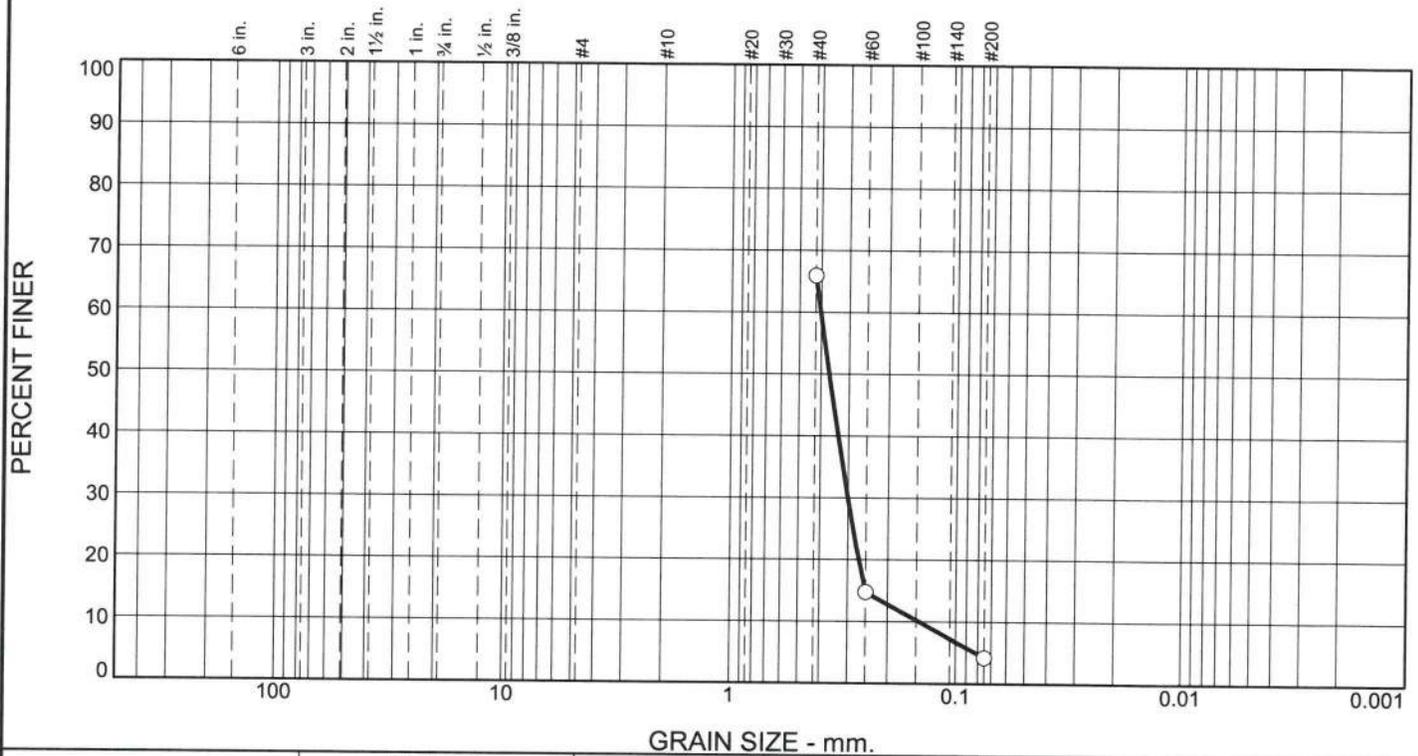
Tested By: DR

Checked By: JJC

Title: \_\_\_\_\_

<p>Location: Foley, AL  Sample Number: B-10      Depth: 6-8'</p>	<p style="text-align: right;">Date Sampled:</p>	
<p><b>GeoCon</b></p> <p><b>Robertsdale, Alabama</b></p>	<p>Client: Volkert  Project: Proposed Bon Secour Wetland Construction</p>	<p>Project No: DL 1676-19                      Figure</p>

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					61.7		4.2

TEST RESULTS			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
#40	65.9		
#60	14.8		
#200	4.2		

\* (no specification provided)

**Material Description**

Orange Sand

**Atterberg Limits (ASTM D 4318)**

PL= 12      LL= 12      PI= 0

**Classification**

USCS (D 2487)= SP      AASHTO (M 145)=

**Coefficients**

D<sub>90</sub>=      D<sub>85</sub>=      D<sub>60</sub>= 0.4026  
D<sub>50</sub>= 0.3671      D<sub>30</sub>= 0.3010      D<sub>15</sub>= 0.2508  
D<sub>10</sub>= 0.1450      C<sub>u</sub>= 2.78      C<sub>c</sub>= 1.55

Remarks

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Date Received: \_\_\_\_\_      Date Tested: 5/1/2019

Tested By: DR \_\_\_\_\_

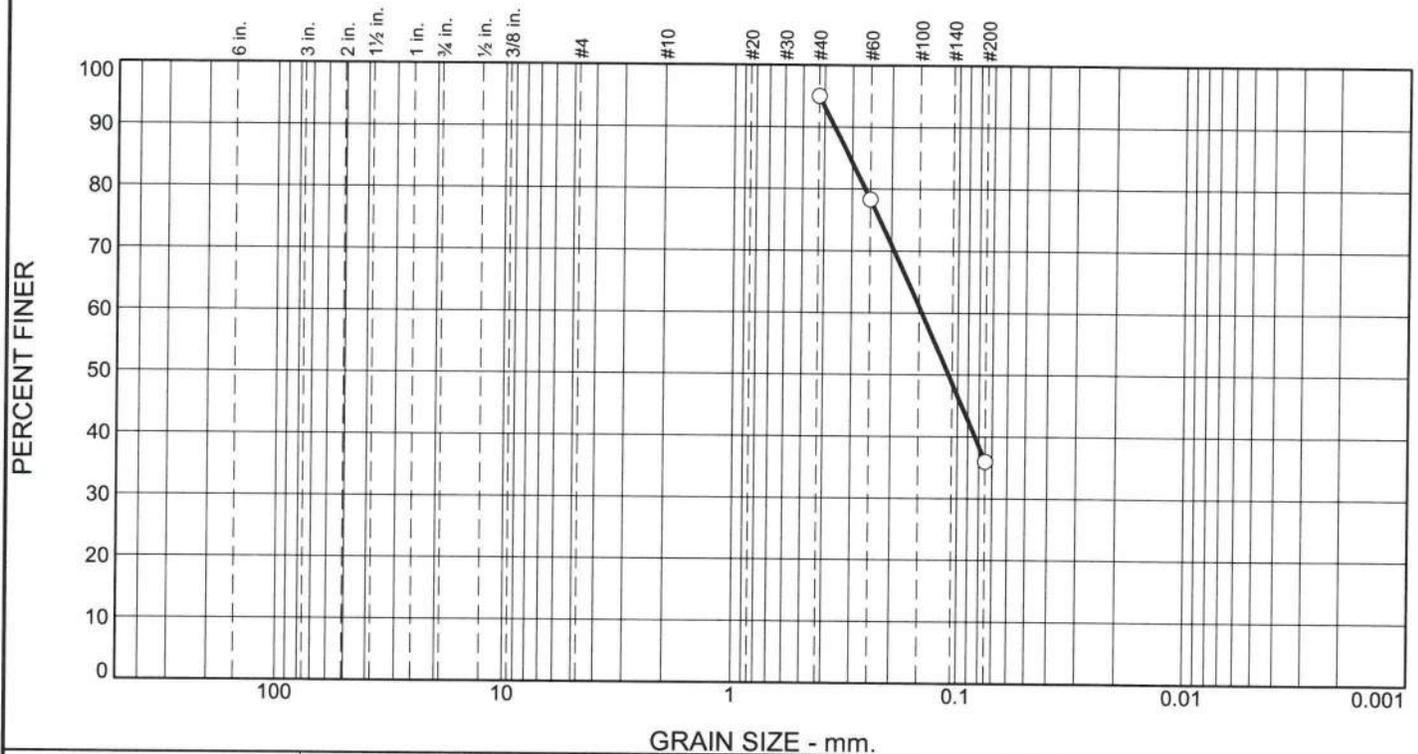
Checked By: JJC \_\_\_\_\_

Title: \_\_\_\_\_

Location: Foley, AL      Sample Number: B-10      Depth: 16'      Date Sampled: \_\_\_\_\_

<p><b>GeoCon</b></p> <p><b>Robertsdale, Alabama</b></p>	<p><b>Client:</b> Volkert</p> <p><b>Project:</b> Proposed Bon Secour Wetland Construction</p> <p><b>Project No:</b> DL 1676-19</p> <p style="text-align: right;"><b>Figure</b></p>
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# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					59.0		36.0

TEST RESULTS			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
#40	95.0		
#60	78.3		
#200	36.0		

\* (no specification provided)

**Material Description**

Dark Gray Silty Sand

**Atterberg Limits (ASTM D 4318)**

PL= 14      LL= 16      PI= 2

**Classification**

USCS (D 2487)= SM      AASHTO (M 145)=

**Coefficients**

D<sub>90</sub>= 0.3614      D<sub>85</sub>= 0.3080      D<sub>60</sub>= 0.1460  
D<sub>50</sub>= 0.1103      D<sub>30</sub>=              D<sub>15</sub>=  
D<sub>10</sub>=              C<sub>u</sub>=              C<sub>c</sub>=

Remarks

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Date Received: \_\_\_\_\_ Date Tested: 5/1/2019

Tested By: DR \_\_\_\_\_

Checked By: JJC \_\_\_\_\_

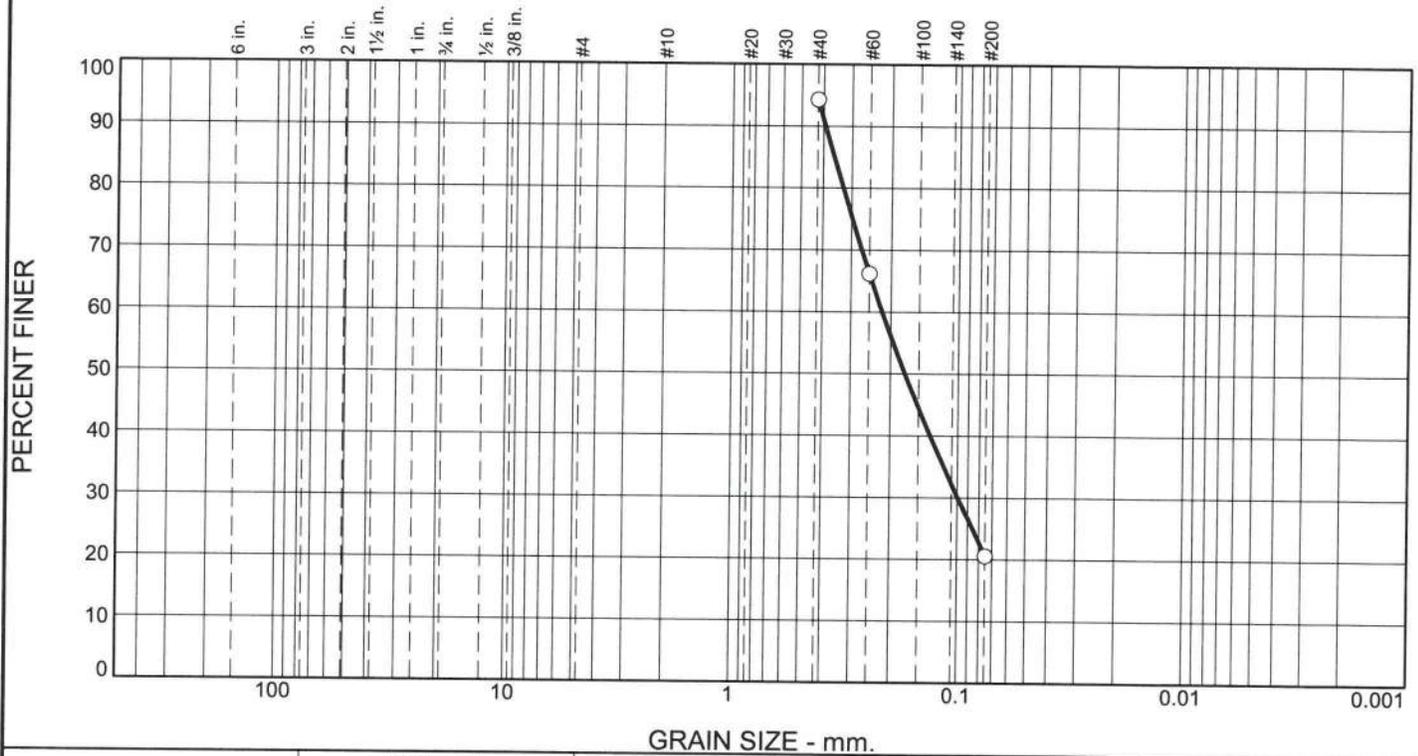
Title: \_\_\_\_\_

Location: Foley, Al      Depth: 2.5'

Date Sampled: \_\_\_\_\_

<p style="font-size: 1.2em; margin: 0;"><b>GeoCon</b></p> <p style="font-size: 1.2em; margin: 0;"><b>Robertsdale, Alabama</b></p>	<p><b>Client:</b> Volkert</p> <p><b>Project:</b> Proposed Bon Secour Wetland Construction</p> <p><b>Project No:</b> DL 1676-19</p>
<p><b>Figure</b></p>	

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					73.7		20.6

TEST RESULTS			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
#40	94.3		
#60	66.2		
#200	20.6		

\* (no specification provided)

**Material Description**

Light Gray Silty Sand

**Atterberg Limits (ASTM D 4318)**

PL= 12                      LL= 12                      PI= 0

**Classification**

USCS (D 2487)= SM                      AASHTO (M 145)=

**Coefficients**

D<sub>90</sub>= 0.3933                      D<sub>85</sub>= 0.3590                      D<sub>60</sub>= 0.2189  
D<sub>50</sub>= 0.1730                      D<sub>30</sub>= 0.0998                      D<sub>15</sub>=  
D<sub>10</sub>=                                      C<sub>u</sub>=                                      C<sub>c</sub>=

Remarks


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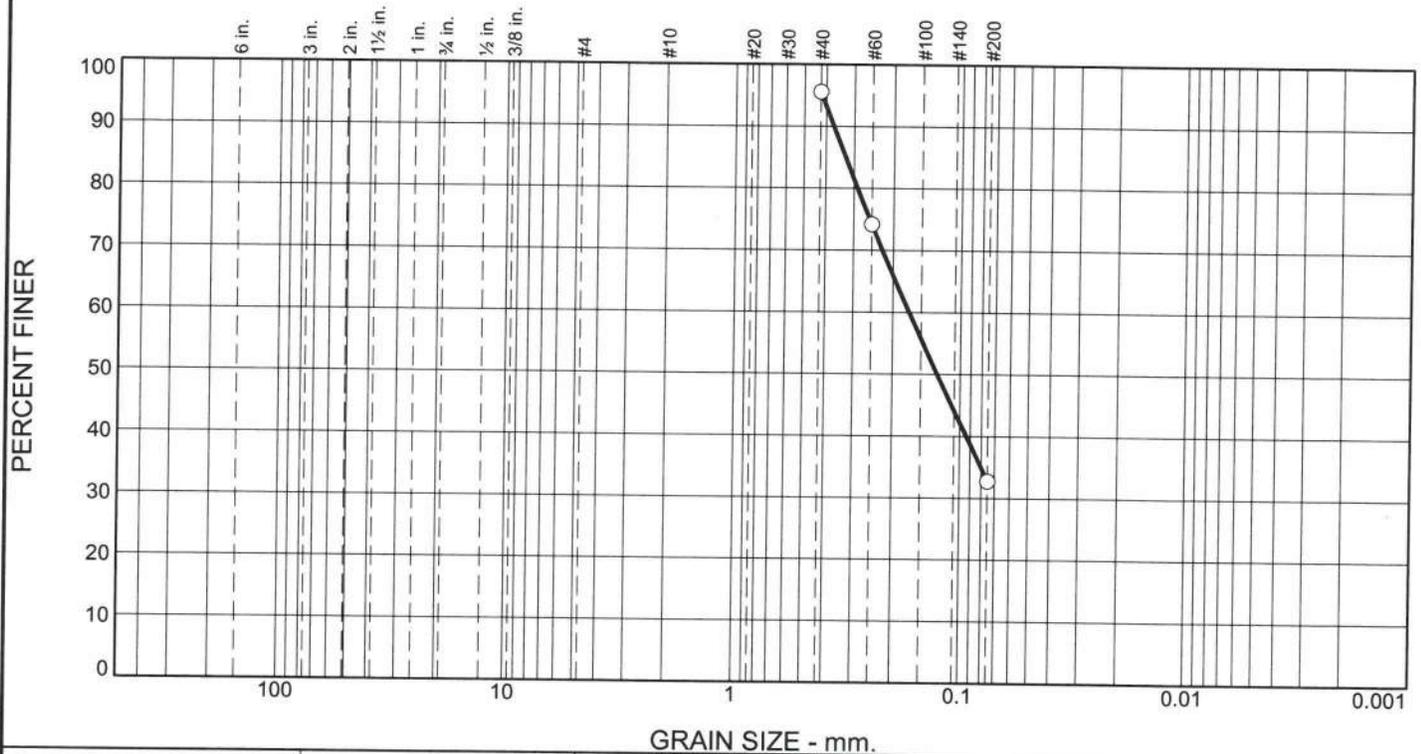
Date Received:                      Date Tested: 5/1/2019

Tested By: DR

Checked By: JJC

Title: \_\_\_\_\_

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					62.9		32.7

TEST RESULTS			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
#40	95.6		
#60	74.2		
#200	32.7		

\* (no specification provided)

**Material Description**

Dark Gray Silty-Clayey Sand

**Atterberg Limits (ASTM D 4318)**

PL= 14                      LL= 18                      PI= 4

**Classification**

USCS (D 2487)= SC-SM    AASHTO (M 145)=

**Coefficients**

D<sub>90</sub>= 0.3711              D<sub>85</sub>= 0.3282              D<sub>60</sub>= 0.1698  
D<sub>50</sub>= 0.1269              D<sub>30</sub>=                      D<sub>15</sub>=  
D<sub>10</sub>=                      C<sub>u</sub>=                      C<sub>c</sub>=

Remarks

---

Date Received:                      Date Tested: 5/1/2019

Tested By: DR

Checked By: JJC

Title: \_\_\_\_\_

Location: Foley, AL  
Sample Number: HA-8

Depth: 2'

Date Sampled:

GeoCon

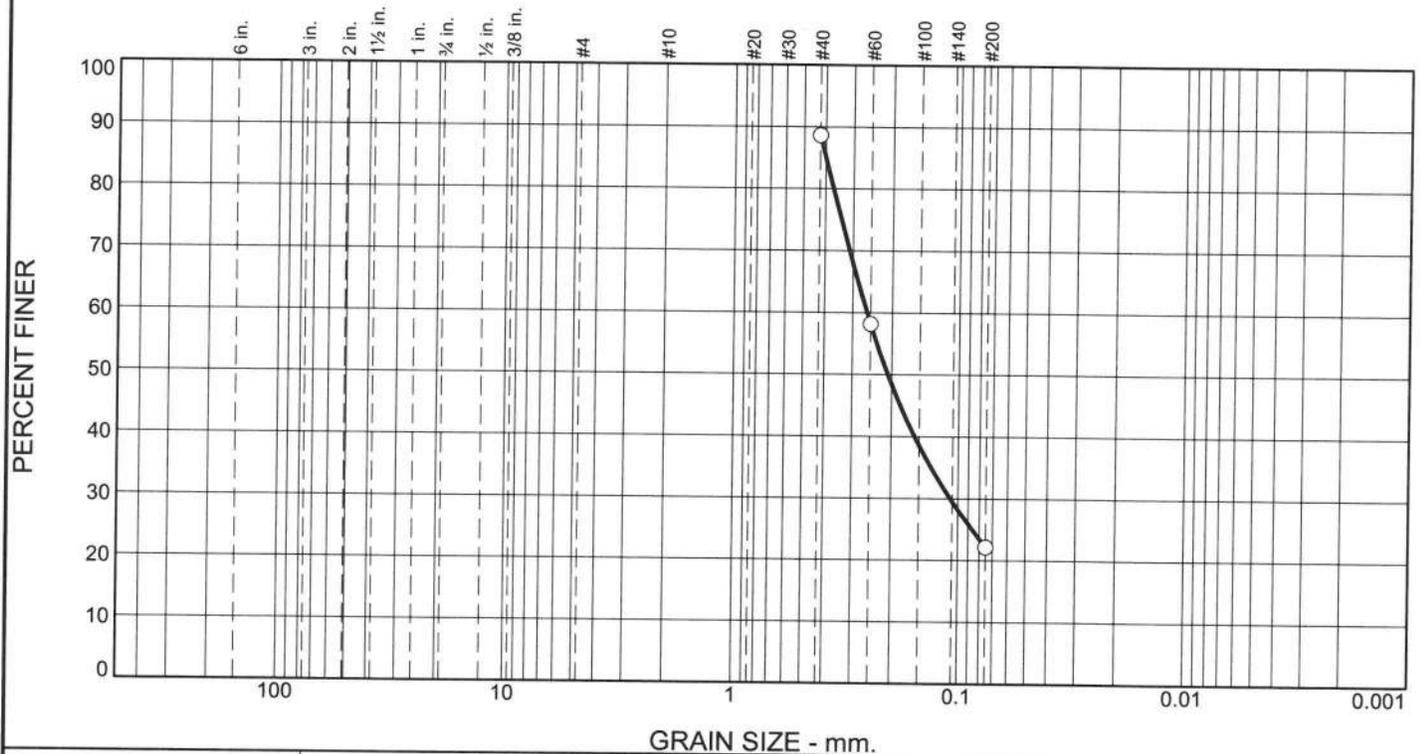
Robertsdale, Alabama

Client: Volkert  
Project: Proposed Bon Secour Wetland Construction

Project No: DL 1676-19

Figure

# Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
					66.4		22.2

TEST RESULTS			
Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
#40	88.6		
#60	58.2		
#200	22.2		

\* (no specification provided)

**Material Description**

Dark Gray Silty Sand

**Atterberg Limits (ASTM D 4318)**

PL= 12                      LL= 14                      PI= 2

**Classification**

USCS (D 2487)= SM                      AASHTO (M 145)=

**Coefficients**

D<sub>90</sub>=                      D<sub>85</sub>= 0.4006                      D<sub>60</sub>= 0.2593  
D<sub>50</sub>= 0.2083                      D<sub>30</sub>= 0.1084                      D<sub>15</sub>=  
D<sub>10</sub>=                      C<sub>u</sub>=                      C<sub>c</sub>=

Remarks

---

Date Received:                      Date Tested: 5/1/2019

Tested By: DR \_\_\_\_\_

Checked By: JJC \_\_\_\_\_

Title: \_\_\_\_\_

Location: Foley, AL                      Sample Number: HA-10                      Depth: 2'                      Date Sampled:

<p><b>GeoCon</b></p> <p><b>Robertsdale, Alabama</b></p>	<p>Client: Volkert</p> <p>Project: Proposed Bon Secour Wetland Construction</p> <p>Project No: DL 1676-19</p> <p style="text-align: right;">Figure</p>
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# SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS	
			GRAPH	LETTER		
<b>COARSE GRAINED SOILS</b>  MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	<b>GRAVEL AND GRAVELLY SOILS</b>  MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	<b>CLEAN GRAVELS</b>  (LITTLE OR NO FINES)		<b>GW</b>	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
				<b>GP</b>	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
		<b>GRAVELS WITH FINES</b>  (APPRECIABLE AMOUNT OF FINES)		<b>GM</b>	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES	
				<b>GC</b>	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES	
	<b>SAND AND SANDY SOILS</b>  MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	<b>CLEAN SANDS</b>  (LITTLE OR NO FINES)		<b>SW</b>	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES	
				<b>SP</b>	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES	
		<b>SANDS WITH FINES</b>  (APPRECIABLE AMOUNT OF FINES)		<b>SM</b>	SILTY SANDS, SAND - SILT MIXTURES	
				<b>SC</b>	CLAYEY SANDS, SAND - CLAY MIXTURES	
		<b>FINE GRAINED SOILS</b>  MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	<b>SILTS AND CLAYS</b>  LIQUID LIMIT LESS THAN 50		<b>ML</b>	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
					<b>CL</b>	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
	<b>OL</b>			ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY		
<b>SILTS AND CLAYS</b>  LIQUID LIMIT GREATER THAN 50	<b>SILTS AND CLAYS</b>  LIQUID LIMIT GREATER THAN 50		<b>MH</b>	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS		
			<b>CH</b>	INORGANIC CLAYS OF HIGH PLASTICITY		
			<b>OH</b>	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS		
<b>HIGHLY ORGANIC SOILS</b>				<b>PT</b>	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS	

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

# Important Information about Your Geotechnical Engineering Report

*Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.*

*While you cannot eliminate all such risks, you can manage them. The following information is provided to help.*

## **Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects**

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you — should apply the report for any purpose or project except the one originally contemplated.*

## **Read the Full Report**

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

## **A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors**

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,

- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

## **Subsurface Conditions Can Change**

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

## **Most Geotechnical Findings Are Professional Opinions**

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

## **A Report's Recommendations Are *Not* Final**

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.*

### **A Geotechnical Engineering Report Is Subject to Misinterpretation**

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

### **Do Not Redraw the Engineer's Logs**

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

### **Give Contractors a Complete Report and Guidance**

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time to perform additional study.* Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

### **Read Responsibility Provisions Closely**

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that

have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

### **Geoenvironmental Concerns Are Not Covered**

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

### **Obtain Professional Assistance To Deal with Mold**

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; *none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.*

### **Rely, on Your ASFE-Member Geotechnical Engineer for Additional Assistance**

Membership in ASFE/THE BEST PEOPLE ON EARTH exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your ASFE-member geotechnical engineer for more information.



8811 Colesville Road/Suite G106, Silver Spring, MD 20910  
Telephone: 301/565-2733 Facsimile: 301/589-2017  
e-mail: info@asfe.org www.asfe.org

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## TERMS AND CONDITIONS

**SERVICES TO BE PROVIDED.** GeoCon Engineering & Material Testing, Inc. (hereinafter GeoCon) is an independent consultant and agrees to provide Client, for its sole benefit and exclusive use, consulting services set forth in our proposal.

**PAYMENT TERMS.** Client agrees to pay our Invoice upon receipt. If payment is not received within 30 days from the invoice date, Client agrees to pay a service charge on the past due amount at a rate of 1.5% per month, and GeoCon reserves the right to suspend all work until payment is received. No deduction shall be made from our invoice on account of liquidated damages or other sums withheld from payments to contractors or others.

**TERMINATION.** Either party may terminate this Agreement without cause upon 20 days advance notice in writing. In the event Client requests termination prior to completion of the proposed services, Client agrees to pay GeoCon for all costs incurred plus reasonable charges associated with termination of the work.

**PROFESSIONAL LIABILITY.** Notwithstanding any other provision of this Agreement, the Engineer's and GeoCon's total liability to the Owner for any loss or damages from claims arising out of or in connection with this Agreement from any cause including the Engineer's strict liability, breach of contract, or professional negligence, errors and omissions (whether claimed in tort, contract, strict liability, nuisance, by statute or otherwise) shall not exceed the lesser of the total contract price of this Agreement or the proceeds paid under Engineer's liability insurance in effect at the time such claims are made. The Owner hereby releases the Engineer from any liability exceeding such amount. In no event shall either party to this Agreement be liable to the other for special, indirect, incidental or consequential damages, whether or not such damages were foreseeable at the time of the commencement of the work under this Agreement.

**SITE OPERATIONS.** Client will arrange for right-of-entry to all applicable properties for the purpose of performing studies, tests and evaluations pursuant to the agreed services. Client represents that it possesses necessary permits and licenses required for its activities at the site.

**OWNERSHIP AND USE OF PROJECT DOCUMENTS.** All documents are instruments of service in respect to the Services, and Engineer shall retain an ownership and proprietary property interest therein (including the right of reuse at the discretion of the Engineer) whether or not the Services are completed. Client may make and retain copies of documents for information and reference in connection with the services by Client. Such documents are not intended or represented to be suitable for reuse by Client or others on extensions of the services or on any other project. Any such reuse or modification without written verification or adaptation by Engineer, as appropriate for the specific purpose intended, will be at Client's sole risk and without liability or legal exposure to Engineer or to Engineer's consultants. Client shall indemnify and hold harmless Engineer and Engineer's consultants from all claims, damages, and expenses including attorneys' fees arising out of or resulting therefrom.

**ADDITIONAL SERVICES OF CONSULTANT.** If authorized in writing by the Client, GeoCon shall furnish additional services that are not considered as an integral part of the Scope of Services outlined in the Proposal Acceptance Sheet. Under this Agreement, all costs for additional services will be negotiated as to activities and compensation. In addition, it is possible that unforeseen conditions may be encountered that could substantially alter the original scope of services. If this occurs, GeoCon will promptly notify and consult with Client and any additional services will be negotiated.

**ASSIGNABILITY.** GeoCon shall not assign any interest on this Agreement, and shall not transfer any interest in the same (whether by assignment or novation), without the prior written consent of the Client; provided, however, that claims for money by GeoCon against Client under this Agreement may be assigned to a bank, trust company, or other financial institution without such approval. Written notice of any such assignment or transfer shall be promptly furnished to the Client.

**SERVICES TO BE CONFIDENTIAL.** All services, including opinions, designs, drawings, plans, specifications, reports and other services and information, to be furnished by GeoCon under this Agreement are confidential and shall not be divulged, in whole or in part, to any person, other than to duly authorized representatives of the client, without prior written approval of the Client, except by testimony under oath in a judicial proceeding or as otherwise required by law. GeoCon shall take all necessary steps to ensure that no member of its organization divulges any such information except as may be required by law.

**CLAIMS.** The parties agree to attempt to resolve any dispute without resort to litigation. However, in the event a claim is made that results in litigation, and the claimant does not prevail at trial, then the claimant shall pay all costs incurred in defending the claim, including reasonable attorney's fees. The claim will be considered proven if the judgment obtained and retained through any applicable appeal is at least ten percent greater than the sum offered to resolve the matter prior to the commencement of trial.

**SEVERABILITY.** It is understood and agreed by the parties hereto, that if any part, term or provision of this Agreement is held by any court of competent jurisdiction to be illegal or in conflict with any applicable law, the validity of the remaining portion or portions of this Agreement shall not be affected and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular part, term or provision held to be invalid.

**SURVIVAL.** All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating responsibility or liability between Client and GEOCON shall survive the completion of the services and the termination of this Agreement.

**INTEGRATION.** This Agreement, the attached documents and those incorporated herein constitute the entire Agreement between the parties and cannot be changed except by a written instrument signed by both parties.

**GOVERNING LAW.** This Agreement shall be governed in all respects by the laws of the State of Alabama and venue shall be in Baldwin County, Alabama.