



**INVITATION TO BID (ITB)**

**ITB 19-310**

**CONSTRUCTION OF  
NATURE TRAIL AT  
BRIARWOOD PARK**

**Release Date: June 14, 2019**

**Invitation to Bid Due: July 29, 2019 @ 3 pm EST.**

**Mandatory Pre-Bid Conference 10 am EST July 9, 2019**

**Briarwood Park, 2235 Briarwood Way, NE, Brookhaven, GA 30319**

**Deadline for Questions: July 17, 2019 @ 3:00 pm EST.**

Questions must be directed to:

City of Brookhaven via e-mail to Director of Finance at [Linda.Nabers@BrookhavenGA.gov](mailto:Linda.Nabers@BrookhavenGA.gov)

Questions will only be accepted via email to ensure the same information is given to everyone. A questions addendum will be issued shortly after the deadline and posted on the City's Purchasing Page.

**Instructions to Proposers**

All spaces below are to be completed and the Invitation to Bid Letter page must be signed where indicated.

Failure to sign and return Invitation to Bid Letter may cause rejection of the Invitation to Bid.

Invitation to Bid of:

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

Contact Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_ Facsimile: \_\_\_\_\_

Email: \_\_\_\_\_

Submit Bid Response to:

City of Brookhaven Purchasing Office 4362 Peachtree Road

Brookhaven, GA 30319

ATTN: Linda Nabers, Director of Finance

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**Invitation to Bid**  
**ITB 19-310**

The City of Brookhaven is requesting bids for the construction of a nature trail at City of Brookhaven, Briarwood Park. This project is partially funded through the Georgia Department of Natural Resources Recreational Trails Grant Program, Briarwood Park Nature Trail DNR Grant #NRT-16(16). This invitation to bid is for trail construction included in the grant documents.

Bids should be typed or submitted in ink and returned in a sealed container marked on the outside with the ITB-19-310 number and Company Name. Bids will be received until 3:00 P.M. EST, local time on July 29, 2019 at the City of Brookhaven, 4362 Peachtree Road, Brookhaven, Georgia 30319. Any bid received after this date and time will not be accepted. Bids will be publicly opened and read at July 29 at 3:00 P.M. EST. Apparent lowest bidder results will be available at that time.

Bidders are expected to provide the City with any questions regarding the Bid Documents by the deadline for questions to be submitted. Questions regarding bids should be directed to the Director of Finance at [Linda.Nabers@BrookhavenGA.gov](mailto:Linda.Nabers@BrookhavenGA.gov) no later than July 17, 2019 at 3:00 pm EST. Bids are legal and binding upon the bidder when submitted. All bids should be submitted in duplicate.

The written bid documents supersede any verbal or written prior communications between the parties.

Award will be made to the supplier submitting the lowest responsive and responsible bid. The City reserves the right to reject any or all bids to waive technicalities and to make an award deemed in its best interest. Bids may be split or awarded in entirety. The City reserves the option to negotiate terms, conditions and pricing with the lowest responsive, responsible bidder(s) at its discretion.

Bids shall be presented in a sealed opaque envelope with the proposal number and name ITB 19-310 (Construction of Nature Trail) clearly marked on the outside of the envelope. The name of the company or firm submitting a bid should also be clearly marked on the outside of the envelope. ONE (1) ORIGINAL PAPER COPY AND ONE DISK/FLASH DRIVE OF THE BID MUST BE SUBMITTED.

**Bidders are to refer to Technical Specifications including Scope of Work included here as Exhibit II.**

**This Bid will require Bonds. Please see Bonding documents at the end of this Procurement.**

## **SPECIAL CONDITIONS**

### **Federal Highway Administration Notice**

This project is funded all or in part by the United States Federal Highway Administration (FHWA) as administered by the Georgia Department of Natural Resources (GA DNR.) By federal rule FHWA-1273 is included by reference and attached. (Exhibit I) Per the City of Brookhaven's Purchasing Policy and the City's Agreement with the Georgia Department of Natural Resources, all agreements or sub-agreements of this project will be subject to all regulations included in FHWA-1273. Any violation of FHWA-1273 by the contractor shall be cause for immediate termination and contractor shall be liable for any fines levied against the City or resulting loss of obligated funding.

### **Department of Natural Resources Requirements**

The State of Georgia, Department of Natural Resources and the City of Brookhaven, in consideration of the mutual promises and benefits flowing to each as hereinafter stated, do hereby agree to perform this agreement in accordance with the National Recreational Trails Act (NRTA), Title I, Part B, Section 1301 of the Intermodal Surface Transportation Efficiency Act of 1991 (P.L. 102-240, 105 Stat. 1914), later reauthorized as the Recreation Trails Program under the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (P.L. 109-59, 119 Stat. 1144), and the provisions and conditions of the Federal Highway Administration guidelines for the RTP grant program, and with the terms, promises, conditions, covenants, assurances, plans specifications, estimates, procedures, project proposals, and maps attached hereto or retained by the Applicant or DNR and made a part hereof.

The Recreational Trails Program (RTP), which is funded through the Federal Highway Administration, must comply with federal regulations on Disadvantaged Business Enterprises (DBEs).

**As a condition of the grant award, each grantee shall make a good faith effort to award 10 percent of any contracts *and* subcontracts awarded under this federally funded project to DBEs.**

**Methods used to attain this goal, including businesses contacted and DBEs used will need to be reported in writing to the DNR prior to the award of the construction contract.**

**END SPECIAL CONDITIONS**

## General Notes

1. Work is expected to begin **within 10 days** of approval of the contract and all work must be completed **within 120 calendar days**.
2. Any item which must be removed during the construction work shall be removed by the contractor. All costs shall be included in the bid. No claims will be considered for extra compensation.
3. It is the intent of this contract for each bid to include all labor, materials, equipment, tools, transportation, and supplies as required as necessary to complete the work in accordance with the plans, specifications as directed, and the terms of this contract.
4. Upon the completion of each work, any excess items which might be left over from the construction related work shall be removed and disposed of properly by the Contractor. The cost for such removal and disposal of such items will be included in the bid. No claims will be considered for extra compensation.
5. Under this scope, “Department”, “Engineer”, “Resident Engineer” and “Project Landscape Architect” shall mean the “City of Brookhaven, Georgia, Recreation and Parks Director or City of Brookhaven, Georgia or Recreation and Parks Designee”.
6. Working hours are limited to Monday to Friday, 7:30 AM to 8:30 PM unless prior approval is granted by the Department of Recreation and Parks. Lane closures on non-neighborhood streets will only be permissible between the hours of 9 a.m. and 4 p.m.
7. Contractor shall have all vehicles marked with their company name.
8. The Contractor will conduct, at Brookhaven City Hall or a location as selected by the Parks Director, one (1) overall contract pre-construction meeting shortly after award of the contract.
9. The City of Brookhaven will not provide restroom facilities.
10. The Contractor shall perform project housekeeping/clean-up on a daily basis. A 24-hour contact must be provided to the City of Brookhaven for all issues as needed in regard to the project for any safety, signage, or other emergency as needed.
11. The Contractor’s performance will be measured based on the following:
  - Compliance with the Scope of Services and DNR Specifications
  - Meeting the agreed upon schedule dates
  - Submission of all deliverables as specified
12. The Contractor shall obtain permission from any private property owner on whose property construction equipment may be parked. Failure to obtain permission from property owners may result in citations.
13. The City of Brookhaven reserves the right to extend this contract by mutual consent for a limited period of time, not to exceed six (6) months, and extend the contract for additional work to the awarded vendor.

This action should be taken in writing prior to the expiration of the current contract.

14. Proof of Commercial general liability insurance with coverage of not less than ONE MILLION DOLLARS (\$1,000,000.00) combined single limit per occurrence, and with contractual liability coverage for Contractor's covenants to and indemnification of the City under the Contract.
15. All Bidders are required to submit a Bid Bond or a certified check made payable to the City of Brookhaven in the amount of five percent (5%) of the total amount bid. The Bid Bond or certified check must be enclosed in the envelope with the sealed bid.
16. The awarded bidder will be required to furnish a contract Performance Bond and Payment Bond, each in the sum of 100% of the total amount bid and provide insurance coverage as required by the contract documents. Bonding Company must be licensed to do business in Georgia, licensed to do business by the Georgia Secretary of State, authorized to do business in Georgia by the Georgia Insurance Department, listed in the Department of the Treasury's Publication of Companies Holding Certificates of Authority as Acceptable Surety on Federal Bonds and as Acceptable Reinsuring Companies and have an A.M. Best rating of A-V or higher.
17. The awarded bidder will be required to submit Maintenance Bond valid for 12 months in the amount of the total bid.
18. The contractor will be required to provide Performance and Payments Bonds five (5) days after contract has been award.
19. The Contractor shall have 120 calendar days from the notice to proceed to complete the project. Failure to complete the required construction as specified will result in the assessment of Liquidated Damages at the rate of \$500.00 per calendar week.
20. The City reserves the right to make an award as deemed in its best interest, which may include awarding a bid to a single bidder or multiple bidders; or to award the whole bid, only part of the bid, or none of the bid to single or multiple bidders, based on its sole discretion of its best interest.
21. Work is expected to begin **within 10 days** of approval of the contract and all work must be completed **within 120 calendar days**.
22. Any item which must be removed during the construction work shall be removed by the contractor. All costs shall be included in the bid. No claims will be considered for extra compensation.
23. It is the intent of this contract for each bid to include all labor, materials, equipment, tools, transportation, and supplies as required as necessary to complete the work in accordance with the plans, specifications as directed, and the terms of this contract.
24. Upon the completion of each work, any excess items which might be left over from the construction related work shall be removed and disposed of properly by the Contractor. The cost for such removal and disposal of such items will be included in the bid. No claims will be considered for extra compensation.

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34. Proof of Commercial general liability insurance with coverage of not less than ONE MILLION DOLLARS (\$1,000,000.00) combined single limit per occurrence, and with contractual liability coverage for Contractor’s covenants to and indemnification of the City under the Contract.
35. All Bidders are required to submit a Bid Bond or a certified check made payable to the City of Brookhaven in the amount of five percent (5%) of the total amount bid. The Bid Bond or certified check must be enclosed in the envelope with the sealed bid.
36. The awarded bidder will be required to furnish a contract Performance Bond and Payment Bond, each in the sum of 100% of the total amount bid and provide insurance coverage as required by the contract documents. Bonding Company must be licensed to do business in Georgia, licensed to do business by the Georgia Secretary of State, authorized to do business in Georgia by the Georgia Insurance Department, listed in the Department of the Treasury's Publication of Companies Holding Certificates of

Authority as Acceptable Surety on Federal Bonds and as Acceptable Reinsuring Companies and have an A.M. Best rating of A-V or higher.

37. The awarded bidder will be required to submit Maintenance Bond valid for 12 months in the amount of the total bid.
38. The contractor will be required to provide Performance and Payments Bonds five (5) days after contract has been award.
39. The Contractor shall have 120 calendar days from the notice to proceed to complete the project. Failure to complete the required construction as specified will result in the assessment of Liquidated Damages at the rate of \$500.00 per calendar week.
40. The City reserves the right to make an award as deemed in its best interest, which may include awarding a bid to a single bidder or multiple bidders; or to award the whole bid, only part of the bid, or none of the bid to single or multiple bidders, based on its sole discretion of its best interest.

**END GENERAL NOTES**



**CERTIFICATION OF NON-COLLUSION**

The Bid Items provided for in the Bid Schedule are intended to be the only Pay Items under which the Contractor will be compensated for work described above. The Contractor shall examine the requirements of the work and the pay items in the Bid Schedule and include in the unit prices submitted all labor, equipment, materials, appurtenances, overhead, profit, vehicles, and all other things incidental for the completion of the work as specified.

Work is to commence on or about (To Be Determined). The City of Brookhaven requires pricing to remain firm for the duration of the contract. Failure to hold firm pricing for the term of the contract will be sufficient cause for the City to declare bid non-responsive.

Certification of Non-Collusion in Quote Preparation \_\_\_\_\_  
Signature Date

**TERMINATION NOTIFICATIONS**

Termination for Cause: The City may terminate this agreement for cause upon ten days' prior written notice to the Contractor of the Contractor's default in the performance of any term of this agreement. Such termination shall be without prejudice to any of the City's rights or remedies by law.

Termination for Convenience: The City may terminate this agreement for its convenience at any time upon 30 days written notice to the contractor. In the event of the City's termination of this agreement for convenience, the contractor will be paid for those services actually performed. Partially completed performance of the agreement will be compensated based upon a signed statement of completion to be submitted by the contractor, which shall itemize each element of performance.

Termination for fund appropriation: The City may unilaterally terminate this Agreement due to a lack of funding at any time by written notice to the Consultant. In the event of the City's termination of this Agreement for fund appropriation, the Consultant will be paid for those services actually performed. Partially completed performance of the Agreement will be compensated based upon a signed statement of completion to be submitted by the Service Provider which shall itemize each element of performance.

Acknowledgement of Termination Notifications \_\_\_\_\_  
Signature Date

**ACKNOWLEDGEMENT OF ADDENDUM TO INVITATION TO BID**

**Acknowledgement is hereby made of the following Addendum(s) received since issuance of ITB 19-310**

Addendum No. Date \_\_\_\_\_  
\_\_\_\_\_

In compliance with the attached specifications, the undersigned offers and agrees, within ninety (90) days of the date of quote opening, to furnish any or all of the items upon which prices are quoted, at the price set opposite each item, delivered to the designated point(s) within the time specified in the quote schedule.

Legal Business Name \_\_\_\_\_

Federal Tax ID \_\_\_\_\_

Address \_\_\_\_\_

Does your company currently have a location within the City of Brookhaven?  YES  NO

Representative Signature \_\_\_\_\_

Printed Name \_\_\_\_\_

Telephone Number \_\_\_\_\_

Fax Number \_\_\_\_\_

**CONTRACTOR AFFIDAVIT AND AGREEMENT**

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. 13-10-91, stating affirmatively that the individual, firm, or corporation which is contracting with the City of Brookhaven has registered with and is participating in a federal work authorization program\* [any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security or any equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA), P.L. 99-603], in accordance with the applicability provisions and deadlines established in O.C.G.A 13-10-91.

The undersigned further agrees that, should it employ or contract with any subcontractor(s) in connection with the physical performance of services pursuant to this contract, contractor will secure from such subcontractor(s) similar verification of compliance with O.C.G.A 13-10-91 on the Subcontractor Affidavit provided in Rule 300-10-01-.08 or a substantially similar form. Contractor further agrees to maintain records of such compliance and provide a copy of each such verification to the City of Brookhaven at the time the subcontractor(s) is retained to perform such service.

\_\_\_\_\_  
E-Verify \* User Identification Number

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

\_\_\_\_\_  
BY: Authorized Officer or Agent Date  
(Contractor Signature)

\_\_\_\_\_  
Title of Authorized Officer or Agent of Contractor

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

SUBSCRIBED AND SWORN  
BEFORE ME ON THIS THE

\_\_\_\_\_ DAY OF \_\_\_\_\_, 2019

\_\_\_\_\_  
Notary Public

My Commission Expires:

\* As of the effective date of O.C.G.A. 13-10-91, the applicable federal work authorization program is "E-Verify" operated by the U.S. Citizenship and Immigration Services Bureau of the U.S. Department of Homeland Security, in conjunction with the Social Security Administration (SSA).

**Affidavit Verifying Status  
For City Public Benefit Application**

By executing this affidavit under oath, as an applicant for a City of Brookhaven, Georgia Business License or Occupation Tax Certificate, Alcohol License, Taxi Permit or other public benefit as referenced in O.C.G.A. Section 50-36-1, I am stating the following with respect to my application for a City of Brookhaven, Business License or Georgia Occupational Tax Certificate, Alcohol License, Taxi Permit or other public benefit (circle one) for\_\_\_\_\_.

[Name of natural person applying on behalf of individual, business, corporation, partnership, or other private entity]

1) \_\_\_\_\_ I am a United States citizen

OR

2) \_\_\_\_\_ I am a legal permanent resident 19 years of age or older or I am an otherwise qualified alien or non-immigrant under the Federal Immigration and Nationality Act 19 years of age or older and lawfully present in the United States.\*

In making the above representation under oath, I understand that any person who knowingly and willfully makes a false, fictitious, or fraudulent statement or representation in an affidavit shall be guilty of a violation of Code Section 16-10-20 of the Official Code of Georgia.

Signature of Applicant:                      Date

\_\_\_\_\_

Printed Name:

\_\_\_\_\_

SUBSCRIBED AND SWORN  
BEFORE ME ON THIS THE  
\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_

\* \_\_\_\_\_  
Alien Registration number for non-citizens

Notary Public  
My Commission Expires:

\*Note: O.C.G.A. § 50-36-1(e)(2) requires that aliens under the federal Immigration and Nationality Act, Title 8 U.S.C., as amended, provide their alien registration number. Because legal permanent residents are included in the federal definition of “alien”, legal permanent residents must also provide their alien registration number. Qualified aliens that do not have an alien registration number may supply another identifying number below:

\_\_\_\_\_

\*\*\* GENERAL NOTIFICATION OF DOCUMENTATION\*\*\*

FAILURE TO RETURN THE FOLLOWING DOCUMENTS MAY RESULT IN BID BEING DEEMED NON-RESPONSIVE AND AUTOMATIC REJECTION:

1. FAILURE TO USE CITY BID SCHEDULE.
2. FAILURE TO RETURN APPLICABLE COMPLIANCE SHEETS/SPECIFICATION SHEETS.
3. FAILURE TO ACKNOWLEDGE APPLICABLE ADDENDA.
4. FAILURE TO PROVIDE INFORMATION ON ALTERNATES OR EQUIVALENTS.
5. THE CITY SHALL BE THE SOLE DETERMINANT OF TECHNICALITY VS. NON-RESPONSIVE BID.
6. FAILURE TO PROVIDE BID BOND, WILL RESULT IN BID BEING DEEMED NON-RESPONSIVE AND AUTOMATIC REJECTION. BID BONDS ARE NOT REQUIRED ON ALL BIDS. BOND REQUIREMENTS ARE CLEARLY STATED ON THE INVITATION TO BID. IF YOU NEED CLARIFICATION, CONTACT PURCHASING.
7. FAILURE TO COMPLETE CITY PROVIDED CONTRACTOR REFERENCE FORMS.
8. FAILURE TO COMPLETE CITY PROVIDED SUB-CONTRACTOR REFERENCE FORMS.
9. FAILURE TO COMPLETE CITY PROVIDED UNIT PRICE SCHEDULE FORMS
10. FAILURE TO COMPLETE CITY PROVIDED ADDITIVE ALTERNATES FORM

**CITY OF BROOKHAVEN**  
**DEPARTMENT OF FINANCE AND ADMINISTRATION – PURCHASING DIVISION**  
**GENERAL INSTRUCTIONS FOR BIDDERS**

These Instructions will apply unless a particular item is specifically addressed in the solicitation document or not relevant to the particular type of good or service.

**1. PREPARATION OF BIDS:**

- A. Each bidder shall examine the drawings, specifications, schedule and all instructions. Failure to do so will be at the bidder's risk, as the bidder will be held accountable for their bid response.
- B. Each bidder shall furnish all information required by the bid form or document. Each bidder shall sign the bid and print or type his or her name on the schedule. The person signing the bid must initial erasures or other changes. An authorized agent of the company must sign bids.
- C. Individuals, firms and businesses seeking an award of a City of Brookhaven contract may not initiate or continue any verbal or written communications regarding a solicitation with any City officer, elected official, employee or other City representative without the permission of Purchasing between the date of the issuance of the solicitation and the date of the final contract award. Violations will be reviewed by the Purchasing Manager. If determined that such communication has compromised the competitive process, the offer submitted by the individual, firm or business may be disqualified from consideration for award.

**2. DELIVERY:**

- A. Each bidder should state time of proposed delivery of goods or services.
- B. Words such as "immediate," "as soon as possible," etc. shall not be used. The known earliest date or the minimum number of calendar days required after receipt of order (delivery A.R.O.) shall be stated (if calendar days are used, include Saturday, Sunday and holidays in the number).

**3. EXPLANATION TO BIDDERS:**

Any explanation desired by a bidder regarding the meaning or interpretation of the invitation for bids, drawings, specifications, etc. must be requested by the question cutoff deadline stated in the solicitation in order for a reply to reach all bidders before the close of bid. Any information given to a prospective bidder concerning an invitation for bid will be furnished to all prospective bidders as an addendum to the invitation if such information is necessary or if the lack of such information would be prejudicial to uninformed bidders. The written bid documents supersede any verbal or written communications between parties. Receipt of addendum should be acknowledged in the bid. Although Purchasing will make every effort to send any addendum to known bidders, it is the bidder's ultimate responsibility to ensure that they have all applicable addenda prior to bid submittal. This may be accomplished via contact with Purchasing prior to bid submittal.

**4. SUBMISSION OF BIDS:**

- A. Bids shall be enclosed in sealed envelopes, addressed to the City of Brookhaven Purchasing Office with the name of the bidder, the date and hour of opening and the invitation to bid number on the face of the envelope. Telegraphic/faxed bids will not be considered. Any addenda should be enclosed in the sealed envelopes as well.
- B. ADD/DEDUCT: Add or deduct amounts indicated on the outside of the envelope are allowed and will be applied to the lump sum amount. Amount shall be clearly stated and should be initialed by an authorized company representative.
- C. Samples of items, when required, must be submitted within the time specified and, unless otherwise specified by the City, at no expense to the City. Unless otherwise specified, samples will be returned at the bidder's request and expense if items are not destroyed by testing.
- D. Items offered must meet required specifications and must be of a quality, which will adequately serve the use and purpose for which intended.

- E. Full identification of each item bid upon, including brand name, model, catalog number, etc. must be furnished to identify exactly what the bidder is offering. Manufacturer's literature may be furnished.
- F. The bidder must certify that items to be furnished are new and that the quality has not deteriorated so as to impair its usefulness.
- G. Unsigned bids will not be considered except in cases where bid is enclosed with other documents, which have been signed. The City will determine this.
- H. The City of Brookhaven is exempt from federal excise tax and Georgia sales tax with regard to goods and services purchased directly by the City. Suppliers and contractors are responsible for federal excise tax and sales tax, including taxes for materials incorporated in City construction projects. Suppliers and contractors should contact the State of Georgia Sales Tax Division for additional information.
- I. Information submitted by a bidder in the bidding process shall be subject to disclosure after the public opening in accordance with the Georgia Open Records Act. Each page of proprietary information must be identified. Entire bid may not be deemed proprietary.

**5. WITHDRAWAL OF BID DUE TO ERRORS:**

- A. The bidder shall give notice in writing of his claim of right to withdraw his bid without penalty due to an error within two (2) business days after the conclusion of the bid opening procedure. Bids may be withdrawn from consideration if the price was substantially lower than the other bids due solely to a mistake therein, provided the bid was submitted in good faith, and the mistake was a clerical mistake as opposed to a judgment mistake, and was actually due to an unintentional arithmetic error or an unintentional omission of a quantity of work, labor or material made directly in the compilation of the bid, which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of original work papers, documents and material used in the preparation of the bid sought to be withdrawn. The bidder's original work papers shall be the sole acceptable evidence of error and mistake if he elects to withdraw his bid. If a bid is withdrawn under the authority of this provision, the lowest remaining responsive bid shall be deemed to be low bid.
- B. No bidder who is permitted to withdraw a bid shall, for compensation, supply any material or labor or perform any subcontract or other work agreement for the person or firm to whom the contract is awarded or otherwise benefit, directly or indirectly, from the performance of the project for which the withdrawn bid was submitted.
- C. Supplier has up to forty-eight (48) hours to notify Purchasing of an obvious clerical error made in calculation of bid in order to withdraw a bid after bid opening. Withdrawal of bid for this reason must be done in writing within the forty-eight (48) hour period. Suppliers who fail to request withdrawal of bid by the required forty-eight (48) hours shall automatically forfeit bid bond. Bid may not be withdrawn otherwise.
- D. Bid withdrawal is not automatically granted and will be allowed solely at the City of Brookhaven's discretion.

**6. TESTING AND INSPECTION:**

Since tests may require several days for completion, the City reserves the right to use a portion of any supplies before the results of the tests are determined. Cost of inspections and tests of any item, which fails to meet the specifications, shall be borne by the bidder.

**7. F.O.B. POINT:**

Unless otherwise stated in the invitation to bid and any resulting contract, or unless qualified by the bidder, items shall be shipped F.O.B. Destination. The seller shall retain title for the risk of transportation, including the filing for loss or damages. The invoice covering the items is not payable until items are delivered and the contract of carriage has been completed. Unless the F.O.B. clause states otherwise, the seller assumes transportation and related charges either by payment or allowance.

**8. PATENT INDEMNITY:**

The contractor guarantees to hold the City, its agents, officers or employees harmless from liability of any nature or kind for use of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, articles or appliances furnished or used in the performance of the contract, for which the contractor is not the patentee, assignee or licensee.

**9. BID BONDS AND PAYMENT AND PERFORMANCE BONDS (IF REQUIRED):**

A five percent (5%) bid bond, a one hundred percent (100%) performance bond, and a one hundred percent (100%) payment bond shall be furnished to the City of Brookhaven for any bid as required in bid package or document. Failure to submit appropriate bonding will result in automatic rejection of bid. Bonding company must be authorized to do business in Georgia by the Georgia Insurance Commission, listed in the Department of the Treasury's publication of companies holding certificates of authority as acceptable surety on Federal bonds and as acceptable reinsuring companies, and have an A.M. Best rating as stated in the insurance requirement of the solicitation.

**10. DISCOUNTS:**

In connection with any discount offered, time will be computed from the date of delivery and acceptance at destination or from the date correct invoice or voucher is received, whichever is the later date. Payment is deemed to be made for the purpose of earning the discount, on the date of the City check.

**11. AWARD:**

- A. Award will be made to the lowest responsive and responsible bidder. The quality of the articles to be supplied, their conformity with the specifications, their suitability to the requirements of the City, and the delivery terms will be taken into consideration in making the award. The City may make such investigations as it deems necessary to determine the ability of the bidder to perform, and the bidder shall furnish to the City all such information and data for this purpose as the City may request. The City reserves the right to reject any bid if the evidence submitted by, or investigation of such bidder fails to satisfy the City that such bidder is properly qualified to carry out the obligations of the contract.
- B. The City reserves the right to reject or accept any or all bids and to waive technicalities, informalities and minor irregularities in bids received.
- C. The City reserves the right to make an award as deemed in its best interest, which may include awarding a bid to a single bidder or multiple bidders; or to award the whole bid, only part of the bid, or none of the bid to single or multiple bidders, based on its sole discretion of its best interest.

**12. DELIVERY FAILURES:**

Failure of a contractor to deliver within the time specified or within reasonable time as interpreted by the Purchasing Manager, or failure to make replacement of rejected articles/services when so requested, immediately or as directed by the Purchasing Manager, shall constitute authority for the Purchasing Manager to purchase in the open market articles/services of comparable grade to replace the articles/services rejected or not delivered. On all such purchases, the contractor shall reimburse the City within a reasonable time specified by the Purchasing Manager for any expense incurred in excess of contract prices, or the City shall have the right to deduct such amount from monies owed the defaulting contractor. Alternatively, the City may penalize the contractor one percent (1%) per day for a period of up to ten (10) days for each day that delivery or replacement is late. Should public necessity demand it, the City reserves the right to use or consume articles delivered which are substandard in quality, subject to an adjustment in price to be determined by the Purchasing Manager.

**13. CITY FURNISHED PROPERTY:**

No material, labor or facilities will be furnished by the City unless so provided in the invitation to bid.

**14. REJECTION AND WITHDRAWAL OF BIDS:**

Failure to observe any of the instructions or conditions in this invitation to bid may constitute grounds for rejection of bid.

**15. CONTRACT:**

- A. Each bid is received with the understanding that the acceptance in writing by the City of the offer to furnish any or all of the commodities or services described therein shall constitute a contract between the bidder and the City which shall bind the bidder on his part to furnish and deliver the articles quoted at the prices stated in accordance with the conditions of said accepted bid. The City, on its part, may order from such contractor, except for cause beyond reasonable control, and to pay for, at the agreed prices, all articles specified and delivered.



- B. It is understood that the bidder has reviewed the contract documents with the understanding that the City of Brookhaven requires that all agreements between the parties must be entered into via this document. If any exceptions are taken to any part, each must be stated in detail and submitted as part of the bid. If no exceptions are stated, it is assumed that the bidder fully agrees to the provisions contained in the "Sample Contract" in its entirety.
- C. When the contractor has performed in accordance with the provisions of this agreement, the City of Brookhaven shall pay to the contractor, within thirty (30) days of receipt of any department approved payment request and based upon work completed or service provided pursuant to the contract, the sum so requested, less the retainage stated in this agreement, if any.

**16. NON-COLLUSION:**

Bidder declares that the bid is not made in connection with any other bidder submitting a bid for the same commodity or commodities, and that the bid is bona fide and is in all respects fair and without collusion or fraud. An affidavit of non-collusion shall be executed by each bidder. Collusion and fraud in bid preparation shall be reported to the State of Georgia Attorney General and the United States Justice Department.

**17. DEFAULT:**

The contract may be canceled or annulled by the Purchasing Manager in whole or in part by written notice of default to the contractor upon non-performance or violation of contract terms. An award may be made to the next low responsive and responsible bidder, or articles specified may be purchased on the open market similar to those so terminated. In either event, the defaulting contractor (or his surety) shall be liable to the City for costs to the City in excess of the defaulted contract prices; provided, however, that the contractor shall continue the performance of this contract to the extent not terminated under the provisions of this clause. Failure of the contractor to deliver materials or services within the time stipulated on his bid, unless extended in writing by the Purchasing Manager, shall constitute contract default.

**18. TERMINATION FOR CAUSE:**

The City may terminate this agreement for cause upon ten days prior written notice to the contractor of the contractor's default in the performance of any term of this agreement. Such termination shall be without prejudice to any of the City's rights or remedies by law.

**19. TERMINATION FOR CONVENIENCE:**

The City may terminate this agreement for its convenience at any time upon 30 days written notice to the contractor. In the event of the City's termination of this agreement for convenience, the contractor will be paid for those services actually performed. Partially completed performance of the agreement will be compensated based upon a signed statement of completion to be submitted by the contractor, which shall itemize each element of performance.

**20. DISPUTES:**

Except as otherwise provided in the contract documents, any dispute concerning a question of fact arising under the contract which is not disposed of shall be decided after a hearing by the Purchasing Manager, who shall reduce his/her decision to writing and mail or otherwise furnish a copy thereof to the contractor. The decision of the Purchasing Manager shall be final and binding; however, the contractor shall have the right to appeal said decision to a court of competent jurisdiction.

**21. SUBSTITUTIONS:**

Bidders offering and quoting on substitutions or who are deviating from the attached specifications shall list such deviations on a separate sheet to be submitted with their bid. The absence of such a substitution list shall indicate that the bidder has taken no exception to the specifications contained herein.

**22. INELIGIBLE BIDDERS:**

The City may choose not to accept the bid of a bidder who is in default on the payment of taxes, licenses or other monies due to the City. Failure to respond to three (3) consecutive times for any given commodity/service may result in removal from the supplier list under that commodity/service.

**23. BUSINESS LICENSE:**

Each successful bidder shall provide evidence of a valid City of Brookhaven business license if the bidder maintains an office within the City of Brookhaven. Unincorporated, out of City, and out of State bidders are required to provide evidence of a certificate to do business in any town, County or municipality in the State of Georgia, or as otherwise required by City ordinance or resolution.

**24. ALTERATIONS OF SOLICITATION AND ASSOCIATED DOCUMENTS:**

Alterations of City documents are strictly prohibited and will result in automatic disqualification of the firm's solicitation response. If there are "exceptions" or comments to any of the solicitation requirements or other language, then the firm may make notes to those areas, but may not materially alter any document language.

**25. TAX LIABILITY:**

Local and state governmental entities must notify contractors of their use tax liability on public works projects. Under Georgia law, private contractors are responsible for paying a use tax equal to the sales tax rate on material and equipment purchased under a governmental exemption that is incorporated into a government construction project: excluding material and equipment provided for the installation, repair, or expansion of a public water, gas or sewer system when the property is installed for general distribution purposes. To the extent the tangible personal property maintains its character (for example the installation of a kitchen stove), it remains tax-exempt. However, if the installation incorporates the tangible personal property into realty, e.g., the installation of sheetrock, it becomes taxable to the private contractor.

See O.C.G.A. 48-8-3(2) and O.C.G.A. 48-8-63

**26. GENERAL CONTRACTORS LICENSE:**

All General Contractors must have a current valid license from the State Licensing Board for Residential and General Contractors, unless specifically exempted from holding such license pursuant to Georgia law (O.C.G.A. Section 43-41-17).

**27. INDEMNIFICATION:**

To the fullest extent permitted by law, the Contractor shall, at his sole cost and expense, indemnify, defend, satisfy all judgments, and hold harmless the City, the engineer, and their agents and employees from and against all claims, damages, actions, judgments, costs, penalties, liabilities, losses and expenses, including, but not limited to, attorney's fees arising out of or resulting from the performance of the work, provided that any such claim, damage, action, judgment, cost, penalty, liability, loss or expense (1) 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, and (2) is caused in whole or in part by any act or omission of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless whether such claim is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge or otherwise reduce any of the rights or obligations of indemnity which would otherwise exist as to any party or person described in this agreement. In any and all claims against the City, the engineer, or any of their agents or employees by any employee of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation contained herein shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Contractor or any subcontractor under Worker's Compensation Acts, disability benefit acts, or other employee benefit acts.

**28. ENVIRONMENTAL SUSTAINABILITY**

The City of Brookhaven is committed to environmental sustainability. The City believes we have a unique opportunity to further expand our leadership in the area of environmentally preferable purchasing, and through our actions, elicit changes in the marketplace. By further incorporating environmental considerations into public purchasing, the City of Brookhaven will positively impact human health and the environment, remove unnecessary hazards from its operations, reduce costs and liabilities, and improve the environmental quality of the region. As such the City encourages the incorporation of environmental sustainability into proposals.

## **INSURANCE REQUIREMENTS**

Within 10 days of Notice of Award, and at all times that this Contract is in force, the Contractor shall obtain, maintain and furnish the City Certificates of Insurance from licensed companies doing business in the State of Georgia with an A.M. Best Rating A-10 or higher and acceptable to the City covering:

1. Workers' Compensation & Employer's Liability Insurance. Workers' Compensation Insurance in compliance with the applicable Workers' Compensation Act(s) of the state(s) wherein the work is to be performed or where jurisdiction could apply in amounts required by statutes. Employer's Liability Insurance, with limits of liability of not less than \$1,000,000 per accident for bodily injury or disease.
2. Commercial General Liability Insurance, including contractual liability insurance, product and completed operations, personal and advertising injury, and any other type of liability for which this Contract applies with limits of liability of not less than \$1,000,000 each occurrence / \$2,000,000 policy aggregate for personal injury, bodily injury, and property damage. Commercial General Liability Insurance shall be written on an "occurrence" form.
3. Automobile Liability Insurance with limits of liability of not less than \$1,000,000 per accident for bodily injury and property damage if automobiles are to be used in the delivery of or in the completion of services and work or driven onto the City's property. Insurance shall include all owned, non-owned and hired vehicle liability.
4. Umbrella Insurance with limits of liability excess of Employer's Liability Insurance, Commercial General Liability Insurance and Automobile Liability Insurance in the amount of not less than \$3,000,000.
5. Contractors' Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors and Omissions (if project involves environmental hazards) with limits not less than \$1,000,000 per occurrence or claim, and \$2,000,000 policy aggregate.
6. Professional (Errors and Omissions) Insurance- For Professional Services and for all Design/Build Projects with limits of liability of not less than \$3,000,000 per occurrence or claim / \$3,000,000 policy aggregate. Such policy shall also include coverage for losses arising from the breach of information security or cyber liability (including Errors & Omissions, Security and Privacy Liability and Media Liability), whether combined with the Professional Liability policy or placed as a separate policy but carrying the same limits of liability. Such coverage shall insure damage, injury and loss caused by error, omission or negligent acts, including all prior acts without limitation, related to the professional services to be provided under this Contract. The policy shall be amended to include independent contractors providing professional services on behalf of or at the direction of the Contractor. The definition of Contractual Liability shall be amended to state that liability under a contract of professional services is covered. Further, coverage shall be afforded for fraudulent acts, misappropriation of trade secrets, internet professional services, computer attacks, personal injury, regulatory actions, wrongful acts, contractual liability, privacy policy, and insured versus insured. The Contractor shall ensure that coverage under this policy continues for a period of thirty-six (36) months after completion of services.
7. Fidelity Bond (Employee Dishonesty) in the sum of not less than \$50,000.

All such insurance shall remain in effect until final payment is made and the Project is accepted by the City. If the Contractor receives notice of non-renewal or material adverse change of any of the required coverages, the Contractor shall promptly advise the City in writing. Failure of the Contractor to promptly notify the City on non-renewal or material adverse change of any of the required coverages terminates the Agreement as of the date that the Contractor should have given notification to the City. The insurance policies shall contain or be endorsed to contain, the following provisions

- A provision that coverage afforded under such policies shall not expire, be canceled or altered without at least thirty (30) days prior written notice to the City.
- Workers' Compensation and Employer's Liability and Property insurance policies shall contain a waiver of subrogation in favor of the City and the City's boards, officials, directors, officers, employees, representatives, agents, and volunteers.
- Commercial General Liability, Automobile Liability Contractors' Pollution Legal Liability and/or Asbestos Legal Liability and/or Errors and Omissions (if project involves environmental hazards) insurance policies shall include an endorsement making the City and the City's boards, officials, directors, officers, employees, representatives, agents, and volunteers Additional Insureds under such policies.

A copy of these endorsements shall be provided to the City.

Certificates of Insurance showing that such coverage is in force shall be filed under this Contract by the Contractor to the City.

The obligations for the Contractor to procure and maintain insurance shall not be construed to waive or restrict other obligations and it is understood that insurance in no way limits liability of the Contractor whether or not same is covered by insurance.

**Certificate Holder should read: The City of Brookhaven, 4362 Peachtree Rd. Brookhaven, Georgia 30319.**

## **BONDING REQUIREMENTS**

Each bid must be accompanied with a BID BOND (bond only: certified checks or other forms are not acceptable) in an amount equal to five percent (5%) of the base bid, payable to the City of Brookhaven. Said bid bond guarantees the bidder will enter into a contract to construct the project strictly within the terms and conditions stated in this bid and in the bidding and contract documents, should the construction contract be awarded.

The Successful Bidder shall be required to furnish a bond for the faithful performance on the contract and a bond to secure payment of all claims for materials furnished and/or labor performed in performance of the project, both in amounts equal to one hundred percent (100%) of the contract price.

The Successful Bidder shall also be required to furnish a Maintenance Bond, in the amount of one-third (1/3) of the contract price, guaranteeing the repair or replacement caused by defective workmanship or materials for a period of one  
(1) year from the completion of construction.

Bonds shall be issued by a corporate surety appearing on the Treasury Department's most current list (Circular 570 as amended) and be authorized to do business in the State of Georgia.

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

**BID BOND  
(BID BOND TO BE RETURNED WITH BID)**

KNOW ALL MEN BY THESE PRESENTS, THAT

\_\_\_\_\_  
(Name of Contractor)

\_\_\_\_\_  
(Address of Contractor)

a \_\_\_\_\_  
(Corporation, Partnership and or Individual) hereinafter called Principal, and

\_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(Address of Surety)

A corporation of the State of \_\_\_\_\_, and a surety authorized by law to do business in the State of Georgia, hereinafter called Surety, are held and firmly bound unto

City of Brookhaven, Georgia  
4362 Peachtree Road,  
Brookhaven Georgia 30319

herein after referred to as Obligee, in the penal sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to submit, or has submitted, to the City of Brookhaven, Georgia, a proposal for furnishing materials, labor and equipment for:

***Construction of Nature Trail***

WHEREAS, the Principal desires to file this Bond in accordance with law in lieu of a certified Bidder's check otherwise required to accompany this Proposal.

NOW, THEREFORE, the conditions of this obligation are such that if the bid is accepted, the Principal shall within ten days after receipt of notification of the acceptance execute a Contract in accordance with the Bid and upon the terms, conditions, and prices set forth in the form and manner required by the City of Brookhaven, Georgia, and execute a sufficient and satisfactory Performance Bond and Payment Bond payable to the City of Brookhaven, Georgia, each in an amount of 100% of the total Contract Price, in form and with security satisfactory to said the City of Brookhaven, Georgia, and otherwise, to be and remain in full force and virtue in law; and the Surety shall, upon failure of the Principal to comply with any or all of the foregoing requirements within the time specified above, immediately pay to the City of Brookhaven, Georgia, upon demand, the amount hereof in good and lawful money of the United States of America, not as a penalty, but as liquidated damages.

PROVIDED, FURTHER, that Principal and Surety agree and represent that this bond is executed pursuant, to and in accordance with the applicable provisions of the Official Code of Georgia Annotated, as Amended, including, but not limited to, O.C.G.A. § 36-91-1, et. seq., and is intended to be and shall be constructed as a bond in compliance with the requirements thereof.

*Signatures following page*

Signed, sealed, and dated this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_

ATTEST:

\_\_\_\_\_  
(Principal Secretary)

(SEAL)

\_\_\_\_\_  
(Witness to Principal)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Surety)

ATTEST

BY: \_\_\_\_\_  
(Attorney-in-Fact) and Resident Agent

\_\_\_\_\_  
(Attorney-in-Fact)

(Seal)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Witness as to Surety)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Principal)

BY: \_\_\_\_\_

\_\_\_\_\_  
(Address)

**PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS: THAT

\_\_\_\_\_  
(Name of Contractor)

\_\_\_\_\_  
(Address of Contractor)

a \_\_\_\_\_ (Corporation,  
Partnership or Individual)

Hereinafter called Principal, and

\_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(Address of Surety)

A Corporation of the State of \_\_\_\_\_ and a surety authorized by law to do business in the State of Georgia, hereinafter called Surety, are held and firmly bound unto

The City of Brookhaven, Georgia  
(Name of Obligee)

4362 Peachtree Road NE, Brookhaven, GA.  
30319 (Address of Obligee)

hereinafter referred to as Obligee; are held firmly bound unto said Obligee and all persons doing work or furnishing skill, tools, machinery, supplies, or material under or for the purpose of the Contract hereinafter referred to, in the penal sum of: \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

The condition of this obligation is such, as whereas the Principal entered into a certain contract, hereto attached, with the Obligee, dated \_\_\_\_\_ for: \_\_\_\_\_

NOW THEREFORE, the conditions of this obligation are such that if the above bound Principal shall well, truly, fully and faithfully perform said contract according to its terms, covenants, conditions, and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the obligee, with or without notice to the Surety, and during the life of any guaranty required under the contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions and agreement of any and all duly authorized modifications of said contract that may hereafter be made, then his obligation shall be void, otherwise to remain in full force and effect.

PROVIDED FURTHER, that said Surety to this Bond, for value received, hereby stipulates and agrees that no change, extension of time, alterations, or additions to the terms of the Contract or to the Work to be performed there under shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alterations, or additions to the terms of the Contract or to the work to be performed there under.

PROVIDED FURTHER, that Principal and Surety agree and represent that this bond is executed pursuant to and



in accordance with the applicable provisions of the Official Code of Georgia Annotated, as Amended, including but not limited to, O.C.G.A. SS 13-10-1 et. Eq. and SS 36-86-101, et. Seg., and is intended to be and shall be construed as a bond in compliance with the requirements thereof.

Signed, sealed, and dated this \_\_\_\_\_ day of \_\_\_\_\_, 2019

**ATTEST:**

\_\_\_\_\_

(Principal Secretary)

\_\_\_\_\_

(Principal)

(SEAL)

BY: \_\_\_\_\_

\_\_\_\_\_

(Witness to Principal)

\_\_\_\_\_

(Address)

\_\_\_\_\_

(Surety)

**ATTEST:**

\_\_\_\_\_

Attorney-in-Fact) and Resident Agent

\_\_\_\_\_

(Attorney-in-Fact)

(Seal)

\_\_\_\_\_

(Address)

\_\_\_\_\_

(Witness as to Surety)

\_\_\_\_\_

(Address)

**PAYMENT BOND**

KNOW ALL MEN BY THESE PRESENTS: THAT

\_\_\_\_\_  
(Name of Contractor)

\_\_\_\_\_  
(Address of Contractor)

a \_\_\_\_\_  
(Corporation, Partnership or Individual)

Hereinafter called Principal, and

\_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(Address of Surety)

a Corporation of the State of \_\_\_\_\_ and a surety authorized by law to do business in the State of Georgia, hereinafter called Surety, are held and firmly bound unto

The City of  
Brookhaven  
Georgia (Name  
of Obligees)  
4362 Peachtree Road NE,  
Brookhaven, Georgia 30319  
(Address of Obligees)

hereinafter referred to as Obligees; for the use and protection of all subcontractors and all persons supplying labor, services, skill, tools, machinery, materials and/or equipment in the prosecution of the work provided for in the contract herein after referred to in the full and just sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) in lawful money of the United States, for the payment of which sum well and truly to be made, the Principal and Surety bind themselves, their, and each of their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

The condition of this obligation is such, as whereas the Principal entered into a certain contract. Hereto attached, with the Obligees, dated \_\_\_\_ for \_\_\_\_\_.

NOW, THEREFORE, the conditions of this obligation are such that if the Principal shall well, truly, and faithfully perform said Contract in accordance to its terms, covenants, and conditions, and shall promptly pay all persons furnishing labor, materials, services, skill, tools, machinery and/or equipment for use in the performance of said Contract, then this obligation shall be void; otherwise, it shall remain in full force and effect.

All persons who have furnished labor, materials, services, skill, tools, machinery and/or equipment for use in the performance of said Contract shall have a direct right of action on this Bond, provided payment has not been made in full within ninety (90) days after the last day on which labor was performed, materials,

services, skill, tools, machinery, and equipment furnished or the subcontract completed.

PROVIDED FURTHER, that said Surety to this Bond, for value received, hereby stipulates and agrees that no change, extension of time, alterations, or additions to the terms of the Contract or to the Work to be performed there under shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alterations, or additions to the terms of the Contract or to the work to be performed there under.

PROVIDED HOWEVER, that no suit or action shall be commenced hereunder by any person furnishing labor, materials, services, skill, tools, machinery, and/or equipment having a direct contractual relationship with a subcontractor, but no contractual relationship express or implied with the Principal.

Unless such person shall have given notice to the Principal within 120 days after such person did, or performed the last of the work or labor, or furnished the last of the materials, services, skill, tools, machinery and/or equipment for which claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials, services, skill, tools, machinery and/or equipment were furnished, or for whom the work or labor was done or performed. Such a notice shall be served by mailing the same by registered mail, postage prepaid, in an envelope addressed to the Principal, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the State in which the aforesaid project is located, save that such service need not be made by a public officer, and a copy of such notice shall be delivered to the Obligee, to the person and at the address provided for in the Contract, within five days of the mailing of the notice to the Principal.

PROVIDED FURTHER, that any suit under this bond must be instituted before the expiration of one year after the acceptance of the public works covered by the Contract by the proper authorities.

PROVIDED FURTHER, that Principal and Surety agree and represent that this bond is executed pursuant to and in accordance with the applicable provisions of the Official Code of Georgia Annotated, as Amended, including, but not limited to, O.C.G.A. SS 13-10-1, et. Eq. and SS 36-86-101, et. Seg. and is intended to be and shall be construed as a bond in compliance with the requirements thereof.

Signed, sealed, and dated this    day of \_\_\_\_\_, 2019

**ATTEST        (Principal)**

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

By: \_\_\_\_\_  
Principal Secretary

(Seal)

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

(Witness to Principal)

(Address) \_\_\_\_\_

**ATTEST (Surety)**

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

(Attorney-in Fact/ Resident Agent)

(Seal)

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

(Witness to Attorney)

(Address) \_\_\_\_\_

END BOND REQUIREMENTS

**SEE ATTACHMENTS**

**EXHIBIT I  
FHSA-1273**

**AND**

**EXHIBIT II  
SPECIFICATIONS ITB 19-310**

**REQUIRED CONTRACT PROVISIONS  
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

**ATTACHMENTS**

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

**I. GENERAL**

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

**II. NONDISCRIMINATION**

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

**1. Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

**2. EEO Officer:** The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

**3. Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

**4. Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

**5. Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

**6. Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

**7. Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

**8. Reasonable Accommodation for Applicants / Employees with Disabilities:** The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

**9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

#### **10. Assurance Required by 49 CFR 26.13(b):**

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

**11. Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor



will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

### III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

### IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

#### 1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

## 2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

## 3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

#### 4. Apprentices and trainees

##### a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

##### b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

**6. Subcontracts.** The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

**7. Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

**9. Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

**10. Certification of eligibility.**

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

**V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT**

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

**1. Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

**2. Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

**3. Withholding for unpaid wages and liquidated damages.** The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

**4. Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

## VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

## VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

## VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

#### **IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

#### **X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

##### **1. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

\* \* \* \* \*

## **2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:**

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

### **2. Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

\* \* \* \* \*

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:**

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

\* \* \* \* \*

**XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

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

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

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

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.



**ATTACHMENT A - EMPLOYMENT AND MATERIALS  
PREFERENCE FOR APPALACHIAN DEVELOPMENT  
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS  
ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

# Technical Specifications

## Briarwood Park Nature Trail

City of Brookhaven -  
Brookhaven, GA

ITB 2019-301  
Exhibit II

**Site**

Briarwood Park  
2335 Briarwood Way NE  
Brookhaven, GA 30319  
DeKalb County Georgia

**Prepared by**

GreenbergFarrow  
1430 West Peachtree Street  
Suite 200  
Atlanta, GA 30309

t: 404 601 4000

f: 404 601 3970

**GF Project Number**

20181167

**GreenbergFarrow**

ATLANTA  
NEW YORK  
CHICAGO  
LOS ANGELES  
BOSTON  
DALLAS  
NEW JERSEY  
ST. PETERSBURG

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City of Brookhaven  
Briarwood Park Nature Trail  
2235 Briarwood Way NE  
Brookhaven, GA 30319  
DeKalb County Georgia

GFA JOB NUMBER 20181167

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END OF SECTION

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SECTION 01 11 00 - SUMMARY OF WORK

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Project description
- B. Work by others
- C. Owner-furnished products
- D. Work sequence
- E. Existing Site conditions

1.02 PROJECT DESCRIPTION

- A. The Work under this Contract consists of, in general, the construction of a nature trail at Briarwood Park, located at 2235 Briarwood Way NE, City of Brookhaven, DeKalb County, Georgia, 30319.
- B. The Work includes, but is not necessarily limited to, the following items:
  - 1. Compliance with all applicable federal, state and local laws and regulations.
  - 2. Obtaining required permits and authorizations from governing jurisdictions.
  - 3. Preparation and submittal of initial documents prior to commencement of the Work.
  - 4. Mobilization of supplies, equipment and personnel, including transportation to job site, set-up and maintenance of all equipment and temporary facilities and controls required for project execution.
  - 5. Installation and maintenance of erosion control measures, including compost filter socks and disturbed area stabilization.
  - 6. Installation and maintenance of controls for protection of vegetation (including tree protection fencing) and structures to remain in place.
  - 7. Locating and protection of all existing utilities (buried and above grade), structures, and other facilities on the Site not indicated to be removed.
  - 8. Clearing and grubbing of designated areas.
  - 9. Site excavation (including subgrade stabilization as required), filling, grading and other earthwork required for construction of new facilities.
  - 10. Paving specialties (such as pavement striping and markings).
  - 11. Concrete walkway pavement.
  - 12. Final erosion and sedimentation control measures, including disturbed area stabilization with permanent pine straw mulching.
  - 13. Final site cleanup and demobilization.

1.03 WORK BY OTHERS

- A. During the Work, contracts may be in place for execution of other work at the Site. The Contractor shall coordinate with other contractors, engineers, and/or consultants by providing access to the Site to allow activities including, but not limited to, the following:
  - 1. Construction Quality Assurance
  - 2. Construction Quality Control

1.04 WORK SEQUENCE

- A. Detailed sequencing of the Work shall be the responsibility of the Contractor as long as the requirements of these specifications are met, the Contractor's progress is according to the schedule approved by the Owner and Project Landscape Architect, and Contract Times stated in the Agreement are complied with.

1.05 EXISTING SITE CONDITIONS

- A. The property on which the Work will be performed (designated as the "Site"), is indicated on the Drawings.
- B. Existing Utilities and Other Facilities:
  - 1. Refer to the Drawings for available information on utilities and other facilities.
  - 2. The Contract Documents present provisions regarding available information on existing utilities and other facilities, and limitations on completeness of the information.
  - 3. Existing utilities and other facilities not indicated to be removed shall be protected as specified in Section 01 50 00 and other applicable specification sections.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 11 00

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SECTION 00 02 15 – CLIMATOLOGICAL DATA

PART 1 - GENERAL

1.01 DESCRIPTION:

- A. The Contractor agrees that said Work shall be executed regularly, diligently and uninterruptedly at such rate of progress as shall ensure full completion of the entire project and its many and separate components and subcontractors, vendors and suppliers, thereof within the time specified.
- B. It is expressly understood and agreed that the Contractor has visited the site where the work of the Project is to be performed, has considered all contingencies and factors affecting the Contractor's ability to perform all the Work within the time specified, including among others, delays caused by inclement weather (temperature and all forms of precipitation) and other possible delays caused by the climatological conditions prevailing in the general localities and recording stations of the City of Brookhaven, Georgia.
- C. After consideration of these factors, the Contractor has made allowances for such factors before determining and submitting his Bid and executing the Construction Agreement agreeing to the completion times and durations specified in the Contract Documents, and does, further, agree that all things considered, such completion durations are a reasonable time for completion of all Work to be performed hereunder, without the need for any extension of time or any other reasons than those specified below.
- D. The Project's completion time shall not be extended for normal inclement weather for the named locale. Inclement weather days (for temperature and all forms of precipitation) per month have been anticipated and included in the contractual time period given for project completion. The Contractor's written and documented request to the City of Brookhaven, through the Project Landscape Architect, for additional time may only be granted for actual days beyond those normally anticipated for the locale, per the schedule below, and only for which work was actually significantly impeded or precluded by the documented inclement weather.

January	4 Calendar Days
February	5 Calendar Days
March	6 Calendar Days
April	4 Calendar Days
May	3 Calendar Days
June	2 Calendar Days
July	2 Calendar Days
August	2 Calendar Days
September	2 Calendar Days
October	2 Calendar Days
November	2 Calendar Days
December	3 Calendar Days

- E. The burden of proof and documentation for such request for additional time beyond the days indicated shall rest solely with the Contractor. Documentation must clearly show the additional weather days (for above normal inclement temperature and all forms of precipitation) are historically unique to the City of Brookhaven, Georgia, area in general, and the Project's site in particular.
- F. Contractor shall submit all days considered to be "Inclement Weather Days" to the City of Brookhaven through the Project Landscape Architect each week for the week prior.
- G. In the granting and approving of any additional time for completion of the Project, by a mutually agreed upon and properly executed Change Order, in no instance shall a change in Contract Sum be granted to the Contractor by The City of Brookhaven for any adjustments to the Contract Time due to weather.
- H. Requests for time extensions for delays due to inclement weather shall be reported by the Contractor, and considered and evaluated on a quarterly basis, as determined by the Project Landscape Architect, in



consultation with the City of Brookhaven. Only those actual days lost in excess of the cumulative allowable number of inclement weather calendar days, according to the schedule and data provided, will be considered. Time extensions for time losses due to weather conditions will be considered only for full complete calendar days.

- I. No deduction or reduction in the contract time shall be made due to weather conditions of temperature and precipitation below or less than the anticipated or historical forecast.
- J. Bidders shall review the climatological information as they solely deem necessary, and draw their own individual conclusions for bidding and contracting purposes.

**END OF SECTION**

SECTION 01 22 00 - UNIT PRICES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes:
  - 1. Unit price work
  - 2. List of prices required
  - 3. Procedures for unit price work
  
- B. Related sections:
  - 1. Applications for payment: As outlined in General Conditions and Bid Schedule.
  - 2. Procedures for modifications to the contract: As outlined in General Conditions.
  - 3. Procedures for utilization of testing and inspection: As outlined in Specifications.
  - 4. Contract closeout procedures: As outlined in Specification 01 70 00

1.02 UNIT PRICE LIST

- A. Unit Price No. 1: Rock (Open Excavation)
  - 1. Removal of mass rock encountered and requiring excavation as defined in the specifications.
  - 2. Purpose: to adjust the contract sum when actual quantity is determined
  - 3. Quantity to be included in contract sum: 1 cubic yard
  - 4. Unit of measurement: cubic yard
  - 5. Include only the following in the unit price:
    - a. Excavation to 1' below plan subgrade, or below as defined in the specifications, hauling and disposal off site, cost of providing sufficient and suitable fill material from offsite from 1' below subgrade to original level of rock removed, overhead and profit.
  - 6. Include all other costs in the contract sum.
  - 7. Method of measurement: Measurement will be made and verified by the City as outlined in the specifications.
  
- B. Unit Price No. 2: Excavation of unsatisfactory materials and replacement with suitable soil material
  - 1. Removal of unsatisfactory materials encountered and requiring excavation as directed by the City, and replacement with suitable soil material to subgrade as shown on plans.
  - 2. Purpose: to adjust the contract sum when actual quantity is determined.
  - 3. Quantity to be included in contract sum: 1 cubic yard
  - 4. Unit of measurement: cubic yard
  - 5. Include only the following in the unit price:
    - a. Excavation to plan subgrade, hauling and disposal off site, cost of providing sufficient and suitable fill material to subgrade, allowing for replacement of all suitable material removed, overhead and profit.
  - 6. Include all other costs in the contract sum.
  - 7. Method of measurement: Measurement will be made and verified by the City as outlined in the specifications.
  
- C. Unit Price No. 3: Excavation of unsatisfactory materials and replacement with #57 crushed stone.
  - 1. Removal of unsatisfactory materials encountered and requiring excavation as directed by the City, and replacement with suitable soil material to subgrade as shown on plans.
  - 2. Purpose: to adjust the contract sum when actual quantity is determined.
  - 3. Quantity to be included in contract sum: 1 cubic yard
  - 4. Unit of measurement: cubic yards
  - 5. Include only the following in the unit price:
    - a. Excavation to plan subgrade, hauling and disposal off site, cost of providing sufficient and suitable material to subgrade, allowing for replacement of all suitable material removed, overhead and profit.

UNIT PRICES

01 22 00-2

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01/23/2019

6. Include all other costs in the contract sum.
  7. Method of measurement: Measurement will be made and verified by the City as outlined in the specifications.
- D. Unit Price No. 4: Excavation of unsatisfactory materials and replacement with surge stone.
1. Removal of unsatisfactory materials encountered and requiring excavation, as directed by the City, and replacement with surge stone to subgrade as shown on plans.
  2. Purpose: to adjust the contract sum when actual quantity is determined.
  3. Quantity to be included in contract sum: 1 cubic yard
  4. Unit of measurement: cubic yard
  5. Include only the following in the unit price:
    - a. Excavation to plan subgrade, hauling and disposal off site, cost of providing sufficient and suitable surge stone to subgrade, allowing for replacement of all suitable material removed, overhead and profit.
  6. Include all other costs in the contract sum.
  7. Method of measurement: Measurement will be made and verified by the City as outlined in the specifications.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 22 00

SECTION 01 25 00 - SUBSTITUTIONS

PART 1 - GENERAL

1.01 SECTION INCLUDES:

- A. Requirements included
- B. Substitutions / prior approvals
- C. Submittal requirements
- D. Contractor's representation

1.02 REQUIREMENTS INCLUDED:

- A. Substitutions for products specified shall be allowed only under the conditions stated in this section.

1.03 SUBSTITUTIONS/PRIOR APPROVALS:

- A. If it is desired to use products different from those indicated in the Contract documents, the party requesting the substitution shall make written application as described herein. The burden of proving equality of proposed substitutions rests on the party making the request for substitution.
- B. Substitution requests shall only be considered from the awarded Contractor.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 SUBMITTAL REQUIREMENTS:

- A. Submit a separate request for each substitution.
- B. Support each request with the following information:
  - 1. Date of request
  - 2. Name of party proposing substitution.
  - 3. Project name.
  - 4. Specification reference.
  - 5. Complete data substantiating compliance of proposed substitution with requirements stated in Contract Documents:
    - a. Product identification, including manufacturer's name and address.
    - b. Manufacturer's literature, identify:
      - 1) Product description.
      - 2) Reference standards.
      - 3) Performance and test data.
      - 4) Manufacturer's recommendation for use and installation.
    - c. Samples, as applicable.
    - d. Name and address of similar projects on which product has been used, and date of each installation.
  - 6. Itemized comparison of the proposed substitution with product specified, list all variations.
  - 7. Data relating to changes in construction schedule.
  - 8. Any effect of substitution on separate contracts.
  - 9. List of changes required in other work or products.

10. Designation of required license fees or royalties.
11. Designation of availability of maintenance services and sources of replacement materials.

3.02 CONTRACTOR'S REPRESENTATION

- A. In connection with the use of any substitute item approved by the Owner and Project Landscape Architect, it shall be the General Contractor's responsibility to see that such items meet all space requirements, and that any alterations to connecting items necessitated by use of the alternate items are properly made at no increase in cost to the Owner, and that all items are in compliance with the specification requirements. Contractor shall waive all claims for additional costs caused by substitution which may subsequently become apparent.

END OF SECTION 01 25 00

SECTION 01 31 00 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Construction Management Plan
- B. Construction Progress Schedule
- C. Preconstruction and progress meetings
- D. Project coordination and scheduling

1.02 CONSTRUCTION MANAGEMENT PLAN

- A. Submit a Construction Management Plan within the time limit specified in subsection 1.02 of Section 01 33 00.
- B. The Construction Management Plan shall indicate how the construction activities are to be implemented and coordinated, and shall include the following at a minimum:
  - 1. Identification of key project personnel and lines of authority, and descriptions of the duties of the key personnel, and an organizational chart.
  - 2. Proposed work days and hours.
  - 3. Procedures for project communication and coordination.
  - 4. A diagram of the work site with a layout showing existing site conditions, and the location of anticipated haul routes, staging areas, office trailers, and access to the Site. The Contractor shall mark up one set of the Contract Drawings to develop this diagram.
  - 5. Contractor quality control procedures.
  - 6. Lists of construction equipment, systems and materials to be used for the Work.
  - 7. Description of temporary facilities and utilities required to conduct the Work.
  - 8. Identification of all permits required to conduct the Work.
  - 9. Staging of operations, including sequencing of the Work, impact of Work on streets and properties, impact of work on community center operations and programming, impact of work on existing parking facilities, required timing and location of street closures if any, and routing of haul vehicles and construction equipment.
  - 10. Identification of areas for parking of equipment and personal vehicles and storage of materials.
  - 11. Traffic diversion and control plan, including a map with traffic patterns, description of signage, other required controls and route monitoring. Traffic controls must comply with the requirements specified in subsection 1.09 of Section 01 50 00.

1.03 CONSTRUCTION PROGRESS SCHEDULE

- A. Submit initial Construction Progress Schedule within the time limit specified in subsection 1.02 of Section 01 33 00.
- B. Prepare the Construction Progress Schedule in the form of a horizontal bar chart. The Schedule is to be used as the baseline/target schedule.
- C. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate the early and late start, early and late finish, float dates, duration, submittals with logic, and successor/predecessor logic. Identify all Critical Path elements.
- D. The Construction Progress Schedule shall be in accordance with the required work sequence and completion dates specified in the Agreement.

- E. The Construction Progress Schedule shall be revised as required to indicate anticipated and actual durations and sequence of activities. Copies of revised Schedules shall be provided to the Owner and Project Landscape Architect at the time of Progress Meetings for review and comment.
- F. Indicate estimated percentage of completion for each item of Work at each submission. Schedule updates shall present baseline/target bars for individual construction activities directly beneath current timeline bars for comparison purposes.
- G. Whenever it becomes apparent from the current Construction Progress Schedule that delays to the Critical Path have resulted, and hence, that the contract completion date will not be met, Contractor shall submit to the Owner and Project Landscape Architect for approval a written Recovery Plan stating the steps Contractor intends to take to remove or arrest the delay to the Critical Path in the Construction Progress Schedule. The Contractor shall take some or all of the following actions at no additional cost to the Project:
  - 1. Increased construction manpower in such quantities and crafts as will substantially eliminate, in the judgment of the Owner and Project Landscape Architect, the backlog of work.
  - 2. Increase the number of working hours per shift, shifts per working days per week, the amount of construction equipment, or any combination of the foregoing, sufficiently to substantially eliminate, in the judgment of the Owner and Project Landscape Architect, the backlog of work (as allowed by local ordinances and the requirements of the Contract Documents).
  - 3. Reschedule activities to achieve maximum practical concurrence of accomplishment of activities, and comply with the revised Construction Progress Schedule.
- H. The Contract Time will be adjusted by the Owner and Project Landscape Architect only as defined in the Contract Documents. If the Owner and Project Landscape Architect find that the Contractor is entitled to any extension of the Contract Time under the provisions of this Contract, the Owner's and Project Landscape Architect's determination as to the total number of days extensions will be based upon the currently approved Construction Progress Schedule and on all data relevant to the request for extension.

#### 1.04 PRECONSTRUCTION MEETING

- A. The Owner and Project Landscape Architect will schedule and administer a preconstruction meeting as specified in the following paragraphs.
- B. The location of the preconstruction conference will be at a site convenient for all parties, as designated by the Owner and Project Landscape Architect.
- C. Parties responsible for attending the preconstruction conference are representatives of the Owner, Contractor, Project Landscape Architect, and other parties as appropriate.
- D. Agenda:
  - 1. Distribution of copies of the Contract Documents
  - 2. Designation of personnel – representatives of Owner, Project Landscape Architect, Contractor, and other parties as appropriate
  - 3. Review and clarification of the responsibilities of project personnel
  - 4. Review and clarification of the lines of communication
  - 5. Review of: Contractor's Construction Management Plan; Construction Progress Schedule; Schedule of Submittals; and lists of subcontractors and suppliers
  - 6. Procedures for submission and processing of submittals; and discussion of the importance of complete, correct, and timely submittals
  - 7. Procedures for measurement and payment, including the Schedule of Values, applications for payment, and contract modifications
  - 8. Procedures for Contractor's submittal of requests for information (RFIs), and Owner's or Project Landscape Architect's issuance of Field Orders, interpretations and clarifications
  - 9. Discussion of construction quality assurance and quality control procedures
  - 10. Procedures for maintaining Project Record Documents
  - 11. Use of premises, including work areas, storage areas, temporary facilities, and housekeeping

- procedures
- 12. Site security and work hours
- 13. Scheduling for progress meetings
- 14. Other items as appropriate

#### 1.05 PROGRESS MEETINGS

- A. The Owner and Project Landscape Architect will schedule and administer regular progress meetings. The progress meetings will be held as determined by the Owner.
- B. The location of the progress meetings will be at a site convenient for all parties, as designated by the Owner.
- C. Attendance: Representatives of Owner, Project Landscape Architect, Contractor, and other parties as appropriate.
- D. Agenda:
  - 1. Minutes of previous meeting
  - 2. Health and safety issues
  - 3. Community and/or public issues
  - 4. Construction progress review
    - a. Contractor's estimate of planned percent completion compared to actual percent completion
    - b. Review of activities completed since last meeting
    - c. Two-week "look-ahead" of anticipated work items
  - 5. Materials and Products:
    - a. Status of submittal reviews
    - b. Substitutions
    - c. Ordering of materials and products, and delivery issues
    - d. Storage and protection of materials and products
  - 6. Deficiencies:
    - a. Identification of deficiencies
    - b. Status of correction
    - c. Field observations, problems, and conflicts
    - d. Regulatory and/or environmental issues (permits, etc.)
  - 7. Requests for information
  - 8. Applications for payment
  - 9. Contract modifications
  - 10. Action items
  - 11. Other business

#### 1.06 PROJECT COORDINATION AND SCHEDULING

- A. Coordinate scheduling, submittals, and Work of the various sections of the Specifications to assure efficient and orderly sequence of installation of interdependent construction elements.
- B. It is the responsibility of the Contractor performing the defined Scope of Work to coordinate the Work with the other trades in order to accomplish the completion of the total Project within the time required by the overall Project Schedule.
- C. Contractor acknowledges that other trades and scopes of work may be in progress in connection with the Project as required to meet the overall Project Schedule. Contractor agrees to complete the Work so as to accommodate the completion of the other trades and work packages and to provide necessary barricades and other facilities to protect the Work from other trades and work packages.



- D. Contractor shall initiate the Work in accordance with the Project Schedule, and shall thereafter proceed and complete performance of the Work promptly, diligently and in such a manner and sequence with the work of other contractors in order to permit completion of the Project within the required schedule.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 31 00

SECTION 01 33 00 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Initial and progress submittals
- B. Schedule of submittals
- C. Shop drawings and samples
- D. General procedures for submittals
- E. Owner's and Project Landscape Architect's review of submittals

1.02 INITIAL SUBMITTALS

- A. Submit the following to the Owner and Project Landscape Architect for review not more than 15 days after issuance of the Notice to Proceed:
  - 1. Construction Management Plan (refer to Section 01 31 00)
  - 2. Spill Prevention, Control and Countermeasures Plan (refer to Section 01 50 00)
  - 3. Initial Construction Progress Schedule (refer to Section 01 31 00)
  - 4. Schedule of Submittals (refer to this Section)

1.03 PROGRESS SUBMITTALS

- A. Submit the following to the Owner and Project Landscape Architect for review during the progress of the Work and at project completion:
  - 1. Applications for Payment (refer to Contract Documents)
  - 2. Shop drawings, including product data and samples
  - 3. Surveying information (refer to Section 01 71 23)
  - 4. All other miscellaneous submittals not mentioned above but specified in individual specification sections

1.04 SCHEDULE OF SUBMITTALS

- A. The Schedule of Submittals shall include the following:
  - 1. List of all submittals required, with applicable specification section number and paragraph number indicated
  - 2. The planned dates for Contractor's submittals
  - 3. The dates approved submittals will be required from the Owner and Project Landscape Architect.
  - 4. The planned dates of manufacture, delivery and installation of materials, supplies and equipment
- B. Maintain an accurate updated Schedule of Submittals. Include the following items:
  - 1. Submittal description and file number assigned as each submittal is made
  - 2. Date sent to Owner and Project Landscape Architect.
  - 3. Date returned to Contractor from Owner and Project Landscape Architect.
  - 4. Status of submittal
  - 5. Date of resubmittal and return (if applicable)
  - 6. Date material released for fabrication (if applicable)
  - 7. Projected date of fabrication (if applicable)
  - 8. Projected date of delivery to Site (if applicable)

#### 1.05 SHOP DRAWINGS

- A. The term "Shop Drawings" shall be as defined in the Contract Documents. Shop Drawings shall include:
  - 1. Fabrication, erection, setting, and schedule drawings
  - 2. Manufacturers' scale drawings
  - 3. Manufacturers' product data (such as manufacturer's product specification and installation instructions, manufacturers' printed statements of compliance and applicability, catalog cuts, product photographs, production or quality control inspection and test reports and certifications, mill reports, and printed product warranties).
- B. All details on Shop Drawings submitted for approval shall clearly show the relationships of the various parts to the main members and lines of the structure or equipment. Where correct fabrication of the Work depends upon field measurements, such measurements shall be made and noted on the Shop Drawings before being submitted for approval.

#### 1.06 SAMPLES

- A. Furnish, for the approval of the Owner and Project Landscape Architect, samples required in the Specifications or requested by the Owner and Project Landscape Architect. Samples shall be delivered to the Owner and Project Landscape Architect in quantities and sizes as specified. A minimum of two (2) samples of each item shall be submitted unless otherwise specified. The Contractor shall pre-pay all shipping charges on samples. Materials or equipment for which samples are required shall not be used in the Work until approved by the Owner and Project Landscape Architect.
- B. Samples specified in individual sections, include, but are not necessarily limited to, physical examples of the work such as sections of manufactured or fabricated work, small cuts or containers of materials, complete units of repetitively-used products, color/texture/pattern swatches and range sets, specimens for coordination of visual effect, graphic symbols, and units of work to be used by the Owner and Project Landscape Architect for independent inspection and testing, as applicable to the Work.
- C. Approval of a sample shall be only for the characteristics or use named in such approval and shall not be construed to change or modify any Contract requirements.
- D. Approved samples not destroyed in testing shall be stored at the site of the Work. Approved samples in good condition will be marked for identification and may be used in the Work, unless otherwise directed by the Owner and Project Landscape Architect. Materials incorporated in the Work shall match the approved samples. Samples which fail testing or are not approved will be returned to the Contractor at his expense, if so requested at time of submission.

#### 1.07 GENERAL PROCEDURES FOR SUBMITTALS

- A. Submit, with reasonable promptness and in such sequence so as to cause no delay in the Contract Work, all Shop Drawings, quality control reports, record drawings, and other submittals required by the Contract Documents. No extension of time will be authorized because of the Contractor's failure to transmit complete and acceptable submittals sufficiently in advance of incorporation of products in the Work.
- B. Provide no less than ten (10) days for review from the time the Owner and Project Landscape Architect receives them, unless otherwise agreed with the Owner and Project Landscape Architect.
- C. Submit the number of copies of submittal packages that Contractor requires, plus three (3) copies which will be retained by the Owner and Project Landscape Architect.
- D. Submittals shall clearly indicate any deviations or variations from the requirements of the Contract Documents.

- E. All submittals shall be furnished with the following information at a minimum (as applicable to the submittal):
  - 1. Number and title of the submittal
  - 2. Date of submittal
  - 3. Name of Contractor, subcontractor, and manufacturer
  - 4. Clear identification of contents
  - 5. Contractor's certification statement as defined in subsection 1.07.F below
  - 6. Specification section reference
  - 7. Contract Drawing number reference
- F. Each submittal shall bear a stamp or specific written indication that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal. The certification shall be signed by the Contractor's authorized representative, and shall read as follows:
  - 1. "By this submittal, I hereby represent that I have determined and verified all field measurements, field construction criteria, materials, dimensions, catalog numbers, and similar data, and I have checked and coordinated each item with other applicable approved Shop Drawings and all Contractor requirements"
- G. Submittal packages that do not include the Contractor's certification statement will be returned to the Contractor, without review at the Owner's and Project Landscape Architect's option, for non-conformance with this requirement.
- H. Submittals and shop drawings to be submitted as digital 'PDF' files. Large-size shop drawings shall also be submitted with four (4) full-sized hard copies.

#### 1.08 OWNER'S AND PROJECT LANDSCAPE ARCHITECT'S REVIEW OF SUBMITTALS

- A. Owner's and Project Landscape Architect's review is only for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. Contractor is responsible for compliance with the Contract Documents, confirming and correlating all quantities and dimensions, selecting fabrication processes and techniques (including means, methods, and sequencing) of construction, coordinating the Work with that of all other trades, and performance of the Work in a safe and satisfactory manner. The Owner's and Project Landscape Architect's review shall not relieve the Contractor from compliance with the Contract Documents.
- B. Contractor shall not begin any work or purchase any materials or products affected by a submittal which has been returned with the notations "Revise and Resubmit" or "Not Acceptable" until a revision or correction of the submittal has been resubmitted and returned with the notations "Approved" or "Approved as Noted". Corrections noted on the submittals shall be followed without exception. The Contractor shall be responsible for and bear all costs of damages that may result from the ordering of any material or from proceeding with any part of the Work prior to the review and approval by Owner and Project Landscape Architect of the necessary submittals.
- C. Resubmittals will be handled in the same manner as first submittals. On resubmittals the Contractor shall direct specific attention, in writing on the letter of transmittal and on resubmitted Shop Drawings by use of revision triangles or other similar methods, to revisions other than the corrections requested by the Owner and Project Landscape Architect on previous submissions. Any such revisions which are not clearly identified shall be made at the risk of the Contractor. The Contractor shall make corrections to any Work done because of this type revision that is not in accordance to the Contract Documents as may be required by the Owner and Project Landscape Architect.
- D. Partial submittals may not be reviewed. The Owner and Project Landscape Architect will determine the completeness of a submittal. Submittals not complete will be returned to the Contractor. The Owner and Project Landscape Architect may provide a list or mark the submittal directing the Contractor to the areas that are incomplete.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 33 00

SECTION 01 40 00 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Regulatory requirements
- B. References
- C. Source quality control testing
- D. Quality control of installation
- E. Manufacturers' field services and reports
- F. Quality control (QC) services
- G. Duties of QC firms and laboratories
- H. Limits on authority of QC firm(s)
- I. Contractor's responsibilities

1.02 REGULATORY REQUIREMENTS

- A. Comply with all applicable local, state and federal standards and regulations.

1.03 REFERENCES

- A. Conform to latest edition of reference industry standards as of date of the Contract Documents or date otherwise specified in specification sections.
- B. If specified reference standards conflict with Contract Documents, request clarification from Project Landscape Architect before proceeding.
- C. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.04 SOURCE QUALITY CONTROL TESTING

- A. Materials and equipment forming the Work under this Contract are subject to inspection and testing at the point of manufacture or fabrication. Standard specifications for quality and workmanship are indicated in the Contract Documents.
- B. Provide statements or certificates from the manufacturers, fabricators and/or suppliers as specified in individual sections.
- C. All costs of this testing and providing statements and certificates shall be a subsidiary obligation of the Contractor, and no extra charge to the Project shall be allowed on account of such testing and certification.

1.05 QUALITY CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply fully with manufacturers' instructions, including the completion of each step in the sequence.
- C. If manufacturers' instructions conflict with Contract Documents, request clarification from Owner and Project Landscape Architect before proceeding.
- D. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Work shall be performed by persons qualified to produce workmanship of specified quality.

1.06 MANUFACTURERS' FIELD SERVICES AND REPORTS

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel (representatives) to observe and document site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, testing and adjusting of equipment as applicable, and initiation of instructions when necessary.
- B. Submit qualifications of manufacturers' and suppliers' representatives to Owner and Project Landscape Architect fifteen (15) days in advance of required observations. Representatives are subject to approval by Owner and Project Landscape Architect.
- C. The suppliers' or manufacturers' representatives shall report observations and site decisions, or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.

1.07 QUALITY CONTROL SERVICES

- A. Owner will employ and pay for the services of inspection QC firms to perform specified inspection and testing services. The Contractor is responsible to request testing services when needed.
- B. Performance of quality control inspection and testing by Owner's QC firm(s) shall in no way relieve Contractor of obligation to perform the Work in accordance with requirements of the Contract Documents.
- C. Retesting required because of non-conformance to specifications will be charged to the Contractor by deducting inspection and testing charges from the Contract Price. Retesting charges will be determined in accordance with testing firm's standard fee schedule.
- D. Contractor shall allow sufficient time in the Construction Progress Schedule for quality control testing, evaluation, and reporting of test results. Contractor shall give particular attention to this in areas where results/approvals will be required prior to continuing with the Work.
- E. If Contractor elects to continue with work in advance of receipt of test results and Owner's and Project Landscape Architect approval, it shall be understood that it shall be entirely at Contractor's risk. Owner and Project Landscape Architect will not be responsible for consequential delays attributable to failing test results or retesting requirements.
- F. Contractor is responsible for coordination of testing and is liable for the cost of any site visits he schedules if the site is not ready for inspection upon arrival.

1.08 DUTIES OF QC FIRMS AND LABORATORIES

- A. The Owner's QC Firm(s) shall:
1. Provide qualified personnel at the site;
  2. Cooperate with Owner and Project Landscape Architect in performance of services;
  3. Perform specified inspection, sampling, and testing of products in accordance with specified standards;
  4. Promptly notify Project Landscape Architect of observed irregularities or non-conformance of Work or Products; and
  5. Perform additional inspections and tests required by the Owner and Project Landscape Architect.

1.09 LIMITS ON AUTHORITY OF QC FIRM(S)

- A. The Owner's QC Firm(s) shall not release, revoke, alter, or enlarge on requirements of Contract Documents.
- B. The Owner's QC Firm(s) shall not approve or accept any portion of the Work, and shall not assume any duties of Contractor, Project Landscape Architect or Owner.

1.10 CONTRACTOR'S RESPONSIBILITIES

- A. Furnish incidental labor and facilities:
1. To provide access to work to be tested;
  2. To obtain and handle samples at the Site or at the source of products to be tested;
  3. To facilitate inspections and tests; and
  4. For storage and curing of test samples as required.
- B. Coordinate with Owner and Project Landscape Architect sufficiently in advance of construction operations to allow for assignment of personnel and scheduling of tests and inspections.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 40 00



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SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Submittals
- B. Temporary utilities
- C. Temporary sanitation facilities
- D. Protection of existing utilities and surface facilities
- E. Protection of installed work
- F. Fencing and other barriers
- G. Public traffic control
- H. Construction roads and parking
- I. Site security
- J. Site cleaning
- K. Noise control
- L. Control of pollutants
- M. Dust control
- N. Field offices (provided by the Contractor)

1.02 SUBMITTALS

- A. The following submittals referenced in this Section shall be submitted to the Owner and Project Landscape Architect within the time period specified in subsection 1.02.A of Section 01 33 00:
  - 1. Traffic Control Plan (see subsection 1.09)
  - 2. Spill Prevention, Control and Countermeasures Plan (see subsection 1.14)
  - 3. Layout plan for temporary field offices; include as part of the Construction Management Plan specified in Section 01 31 00.

1.03 TEMPORARY UTILITIES

- A. Temporary Power and Lighting
  - 1. Connect to existing power service to provide required temporary electricity for the Work. Pay all costs for connection and use of service.
  - 2. Temporary electrical utilities shall be installed by a licensed electrician. All electrical connections shall meet appropriate NEMA ratings consistent with the intended service. Comply with National Electrical Code (NEC) and all other applicable federal, state and local codes and regulations.
  - 3. Coordinate with local electric utility and Owner. Obtain any necessary permits.
  - 4. Provide and maintain adequate lighting for construction operations and field offices in accordance with

applicable codes and regulations.

5. Pay costs for power service during construction.

B. Temporary Water

1. Connect to existing water source for construction operations. Pay all costs for installation, maintenance and use of the water service. Install flow meters, pipelines and accessories as required by the local water authority.
2. Provide and pay for adequate drinking water for construction personnel.

C. Provide adequate fire protection at the Site as required by local fire codes and standards.

D. Temporary Telephone Service

1. Cellular phones shall be used for on-site communication.
2. Pay all costs for telephone utility services.

E. Provide, maintain and pay for utility services to Contractor's field office (if mobilized to Site) as specified in subsection 1.16.

1.04 TEMPORARY SANITATION FACILITIES

A. Provide and maintain (as applicable) temporary potable water, toilets, washing facilities, and other sanitation facilities on construction sites in accordance with 29 CFR 1926.51, and all other applicable regulations.

B. Job sites without a temporary sanitary sewer shall be provided with temporary toilet facilities such as chemical toilets, recirculating toilets or combustion toilets in accordance with local codes and regulations. Portable toilets shall be cleaned and serviced a minimum of one time per week by a licensed portable toilet facility provider in compliance with applicable local and state regulations. Provide a sufficient number of portable toilet facilities for Contractor's work crews, and authorized visitors. The number of toilets per employee shall conform to the requirements of 29 CFR 1926.51 at a minimum.

C. The temporary sanitation facilities shall be provided at the time of mobilization and maintained in a clean and sanitary condition for the duration of the Work.

1.05 PROTECTION OF EXISTING UTILITIES

A. Protect all existing active and inactive utilities from damage during the Work unless indicated to be removed or abandoned on the Drawings or in these Specifications. If damaged, the utilities shall be repaired at the Contractor's expense.

B. Contact and cooperate with the Owner and the utility companies to locate all utilities (including pipelines, electrical cables, power poles and other utility structures) on the Site prior to beginning the Work. Conform to the requirements of the Contract Documents for locating and protection of Underground Facilities.

C. The approximate locations of selected utilities are shown on the Drawings. Additional utilities not indicated on the Drawings or reference documents may exist. Notify Owner and Project Landscape Architect if unanticipated utilities are encountered and request guidance regarding whether they are to remain or be removed.

D. Comply with the requirements of the "Georgia Utility Facility Protection Act" (Chapter 9 of Title 25 of the Official Code of Georgia Annotated) for protection of underground utilities, including the requirement to give not less than 48 hours notice to the Utilities Protection Center of Georgia.

- E. Comply with the requirements of the utility owner and the “High-voltage Safety Act” (Chapter 3 of Title 46 of the Official Code of Georgia Annotated) for protection of overhead high-voltage lines, including the requirement to give notice to the Utilities Protection Center of Georgia at least 72 hours prior to commencing work in the vicinity of the high-voltage lines.

1.06 PROTECTION OF EXISTING SURFACE FACILITIES

- A. Protect all existing surface facilities (including but not limited to buildings, roadways, walkways, curbs and gutters) from damage during the Work unless otherwise indicated to be demolished or abandoned.
- B. Provide protection for plant life designated to remain (or not designated for removal) as specified in Section 31 10 00.
- C. Repair or replace any existing buildings, fencing, pavement, walkways, curbs and gutters, and other surface facilities that are cracked, broken or otherwise damaged by Contractor, to original condition, or better, in accordance with local requirements at no additional cost to the Project. Assessment of damage will be made by the Owner and Project Landscape Architect based on field observations.

1.07 PROTECTION OF INSTALLED WORK

- A. Protect installed Work and provide special protection where required in individual specification sections.
- B. Provide temporary and removable protection for installed Products. Control activity in immediate work area to minimize damage.

1.08 FENCING AND OTHER BARRIERS

- A. If directed by the Owner, install temporary chain link fencing to prevent unauthorized entry to construction areas, and to protect existing facilities and adjacent properties from damage from construction operations. Maintain fencing on a daily basis and replace or repair damaged materials.
- B. Provide barricades, covered walkways and other temporary construction required by governing authorities for public rights-of-way. All temporary construction shall be in accordance with applicable federal, state and local laws and building codes.
- C. Furnish and post signs warning the general public to prevent unauthorized access and to identify hard hat area.
- D. Clearly mark and protect open excavations using barriers, signs and other markers in accordance with all applicable regulations. Install high-visibility fencing (such as orange high density polyethylene safety fencing), caution tape, suitable barricades, “No Trespassing” and other warning signs as required. An excavation shall be classified as “deep” if it presents a trip or fall hazard or as otherwise defined in applicable OSHA regulations. Maintain barriers and signs on a daily basis at each excavation and replace damaged materials until excavation has been backfilled.

1.09 PUBLIC TRAFFIC CONTROL

- A. Coordinate with the local jurisdictions and comply with applicable requirements for maintaining and protecting traffic on all affected public roads during the Work. A Traffic Control Plan shall be developed and submitted to the Owner and Project Landscape Architect for review. Contractor shall submit the Traffic Control Plan to the local jurisdiction for approval and permitting as required.

- B. Protect and divert pedestrian and vehicular traffic when needed in compliance with the requirements of City of Brookhaven, DeKalb County, Georgia DOT, and other local agencies having jurisdiction. Traffic control shall include: provision of properly trained and equipped flagmen; erection of barricades; placing of lights around and in front of equipment and the Work; and the erection and maintenance of adequate warning, danger, and directional signs. Pedestrians and the traveling public shall be protected from injury or damage.
- C. Obtain and pay for all required road/lane closure permits, haul route permits, and other traffic control permits required for execution of the Work.
- D. Traffic control devices shall comply with the "Manual on Uniform Traffic Control Devices", Part 6 Temporary Traffic Control, published by U.S. Department of Transportation, latest edition.

1.10 CONSTRUCTION ROADS AND PARKING

- A. Contractor's vehicles shall enter and exit the Site only at the locations designated on the Drawings.
- B. If needed, construct temporary gravel surface parking areas in area(s) approved by the Owner and Project Landscape Architect to accommodate construction personnel. When Site space is not adequate, provide additional off-site parking. Vehicles shall not be parked in any locations where they impede traffic or access by emergency vehicles. Vehicles shall not be parked beneath the canopy of existing trees if the trees are scheduled to remain.
- C. Repair existing roads damaged by operation of construction equipment as determined by the Owner and Project Landscape Architect in compliance with applicable requirements of the City of Brookhaven and DeKalb County "Standards for Construction and Design" as reference in applicable specification sections.

1.11 SITE SECURITY

- A. Provide security and facilities to protect the Site from unauthorized entry, vandalism or theft. Initiate security program at project mobilization and maintain the security throughout the duration of the Work.

1.12 SITE CLEANING

- A. Site housekeeping shall be utilized to ensure that the Site is kept in a clean and orderly condition throughout the Work. Comply with the requirements indicated on the Drawings, at a minimum, the following requirements:
  - 1. Supply all covered containers required for collection, storage and removal of trash, rubbish and debris resulting from the Work. No containers will be supplied by the Owner. Remove trash, rubbish and debris from the Site at least once each week and dispose of off-site at a licensed waste disposal facility in accordance with all applicable regulations.
  - 2. Burying of trash, debris, or similar by-products of the Work is strictly prohibited
- B. Bermed containment areas or equivalent shall be provided for washing concrete truck chutes and other placement equipment. Disposal of excess concrete or drum washout water shall not be allowed onsite.
- C. Provide weekly janitorial services for field office(s) (if mobilized for the Work) to perform cleaning and maintenance of field office and storage areas. Maintain field office approach walks free of mud, water, and snow.
- D. Implement measures to ensure that public roads and rights-of-way and adjacent properties are kept free of any impact due to the Work. These measures shall include, but shall not be limited to, the following:
  - 1. Construction and operation of construction exit(s) to prevent tracking of materials off-site.
  - 2. Covering all trucks transporting materials to and from the Site.
  - 3. Controlling dust, smoke, or other emissions from the Site as a result of the Work.

4. Keeping public rights-of-way free of debris and refuse from the Site.

E. Any impact to public roads, rights-of-way or adjacent properties shall require immediate attention and corrective action by the Contractor at no cost to the Owner.

#### 1.13 NOISE CONTROL

A. Contractor is responsible for controlling noise levels by utilizing appropriate noise control on equipment and by complying with required work hour restrictions and other limitations imposed by authorities having jurisdiction.

B. Contractor's vehicles and equipment shall have appropriate noise reduction and protection devices that conform to the latest OSHA standards (including 29 CFR 1926.52), and other applicable state, county and local ordinance requirements.

C. For work performed near the property boundary or near inhabited areas, the Contractor shall consider additional noise mitigation measures if warranted by off-site property uses.

D. Noise mitigation measures shall include, but shall not be limited to, utilizing noise control devices, limiting night work hours for noisy activities, and scheduling and controlling traffic.

E. Coordinate with the Owner to revise work procedures and hours as needed to address noise complaints, if received, while implementing methods to preserve the project schedule without additional cost to the Owner.

#### 1.14 CONTROL OF POLLUTANTS

A. If fuel or other petroleum-based products will be stored on-site to support equipment fleet, prepare and implement a Spill Prevention, Control and Countermeasures Plan (SPCC Plan) in accordance with the provisions of 40 CFR Part 112, Oil Pollution Prevention, latest edition. The SPCC Plan shall be submitted to the Owner and Project Engineer for review, and shall include, but shall not be limited to, the following:

1. Provisions for the prevention of spills as well as clean-up of spills of gasoline, diesel fuel, hydraulic fluids, and lubricants.
2. Names and telephone numbers of local and State officials to be contacted in the event of a spill.
3. List of subcontractors that may be used to manage off-site impacts of spills.
4. Fire prevention and fire fighting measures to be employed for responses to fires that may occur in equipment, or elsewhere on the Site.
5. Services available from the local fire department and coordination with services of the Contractor's on-site personnel.

B. Prevent disposal of wastes, effluents, chemicals, or other such substances into sanitary or storm sewers discharging off-site without treatment in accordance with permits obtained by the Contractor.

C. Fueling of equipment shall be performed away from storm drain inlets. If above-ground fuel storage tanks (ASTs) are present on-site, the ASTs shall be stored in an approved bermed and lined containment areas.

D. Provide systems for control of atmospheric pollutants. Prevent dust, smoke or other emissions from impacting adjacent properties. Prevent toxic concentrations of chemicals, and prevent harmful dispersal of pollutants into the atmosphere.

E. Contractor's equipment used during construction shall conform to all current federal, state and local laws and regulations.

1.15 DUST CONTROL

- A. During construction, the Contractor shall (at a minimum) implement, monitor and maintain best management practices (BMPs) for erosion, sedimentation and pollution control (ES&PC), including airborne transport of sediment (dust carried by wind) and physical transport by vehicles as indicated on the Drawings.
- B. Control dust particles, smoke, aerosols and gaseous by-products from construction activities at all times, including weekends, holidays and hours when the Work is not in progress.
- C. Maintain excavations, stockpiles, and other areas within the Work area free from particulates which would cause the air pollution standards to be exceeded or cause a hazard or nuisance.
- D. Provide all labor, materials and equipment, including water trucks and dust suppressant, needed to limit visible dust generation during the Work.

1.16 FIELD OFFICES

- A. Furnish and maintain field office trailer(s) for Contractor's use. The field office trailer(s) shall be structurally sound, secure, and weather-tight, with floors raised above ground, and conform to all applicable regulations for the occupancy classification.
- B. The field office(s) shall be equipped with sufficient lighting, electrical outlets, restrooms, and heating, cooling and ventilating equipment and vents. All systems shall comply with applicable codes, laws and regulations.
- C. Provide and maintain all required utilities for the temporary field office(s) and associated facilities necessary to support work crews in compliance with applicable codes, laws and regulations and as acceptable to Owner and Project Landscape Architect from time of mobilization until Substantial Completion of the Work.
- D. Prepare and submit a layout plan of all proposed field offices, and related amenities and utilities to be used for the duration of the Project. The layout plan shall be included in the Construction Management Plan as specified in Section 01 31 00. Do not proceed with furnishing and installation of temporary field office(s) prior to Owner and Project Landscape Architect approval of location(s).
- E. Clean field office(s) and surrounding areas as specified in subsection 1.12.
- F. Maintain the temporary field office(s) and related temporary utilities until Substantial Completion of the Work, at which time the temporary facilities shall be removed.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 50 00

SECTION 01 60 00 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Definition of products
- B. Transportation and handling
- C. Storage and protection
- D. Product options
- E. Substitutions

1.02 DEFINITION OF PRODUCTS

- A. The term "Products" refers to new material, machinery, components, equipment, fixtures, and systems forming the Work. Products do not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components required for reuse.

1.03 TRANSPORTATION AND HANDLING

- A. Comply with the requirements of individual specification sections.
- B. Transport and handle products in accordance with manufacturers' instructions.
- C. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.
- D. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, and damage.

1.04 STORAGE AND PROTECTION

- A. Comply with to the requirements of individual specification sections.
- B. Store and protect products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight, climate controlled enclosures.
- C. For exterior storage of fabricated products, place on sloped supports, above ground.
- D. Provide off-site storage and protection when site does not permit on-site storage or protection.
- E. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.
- F. Store loose granular materials on solid flat surfaces in well-drained areas. Prevent mixing with foreign matter.
- G. Provide equipment and personnel to store products by methods to prevent damage.



- H. Arrange storage of products to permit access for inspection. Periodically inspect to assure products are undamaged and are maintained under specified conditions.

1.05 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications; no options or substitutions allowed without written authorization by the Owner and Project Landscape Architect.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named in accordance with the following subsection 1.06.
- D. ALL REFERENCES TO VENDORS AND 'APPROVED MANUFACTURERS' ARE INCLUDED FOR DESCRIPTION OF QUALITY AND CONTENT OF THE DESIGNATED EQUIPMENT/MATERIALS AS A BASIS OF DESIGN. EQUIVALENT ITEMS MAY BE ACCEPTED IF THEY MEET ALL STANDARDS OF QUALITY AND PURPOSE FOR THE INTENDED USE, AS DETERMINED BY CITY OF BROOKHAVEN.

1.06 SUBSTITUTIONS

- A. Owner and Project Landscape Architect will consider requests for Substitutions only within thirty (30) days after date established for commencement of the Work in the Notice to Proceed.
- B. Subsequent Substitutions will be considered only when a product becomes unavailable through no fault of the Contractor. Improper planning will not be considered as a reason to increase Contract Price as a result of product substitution.
- C. In addition to the provisions of the General Conditions, a request for a Substitution constitutes a representation that the Contractor:
  - 1. Shall provide the same warranty for the Substitution as for the specified product.
  - 2. Shall coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to the Project.
- D. Substitutions will not be considered when they are indicated or implied on Shop Drawings or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.
- E. Substitution Submittal Procedure:
  - 1. Submit three (3) copies of request for Substitution for consideration. Limit each request to one proposed Substitution.
  - 2. Submit Shop Drawings, product data, and certified test results attesting to the proposed product equivalence.
  - 3. Owner and Project Landscape Architect will notify Contractor in writing of decision to accept or reject request.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION 01 60 00

SECTION 01 70 00 - EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Closeout procedures.
- B. Final cleaning.
- C. Starting of systems.
- D. Demonstration and instructions.
- E. Testing, adjusting and balancing.
- F. Protecting installed construction.
- G. Project record documents.
- H. Operation and maintenance data.
- I. Manual for materials and finishes.
- J. Manual for equipment and systems.
- K. Spare parts and maintenance products.
- L. Product warranties and product bonds.
- M. Maintenance service.
- N. As-built Record Documents.

1.02 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Owner and Project Landscape Architect's review.
- B. Provide submittals to Owner and Project Landscape Architect as required by authorities having jurisdiction.
- C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.

1.03 FINAL CLEANING

- A. Execute final cleaning prior to final project assessment.
- B. Remove temporary labels, stains and foreign substances.
- C. Remove debris from drainage systems.

- D. Clean site including but not limited to sweeping existing paved areas and the raking clean of trail and adjoining trail shoulder surfaces.
- E. Remove waste and surplus materials, rubbish, and temporary construction facilities from site.

1.04 PROTECTING INSTALLED CONSTRUCTION

- A. Protect installed Work and provide special protection where specified in individual specification sections.
- B. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- C. Provide protective coverings at existing structures located within the limits of construction.
- D. Protect finished trail and adjoining trail shoulder from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- E. Prohibit traffic or storage upon trail and adjoining trail shoulder.

1.05 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
  - 1. Drawings.
  - 2. Specifications.
  - 3. Addenda.
  - 4. Change Orders and other modifications to the Contract.
  - 5. Reviewed Shop Drawings, Product Data, and Samples.
  - 6. Manufacturer's instruction for assembly, installation, and adjusting.
  - 7. City of Brookhaven Approved Permit Documents.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress, not less than weekly.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
  - 1. Manufacturer's name and product model and number.
  - 2. Product substitutions or alternates utilized.
  - 3. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
  - 1. Measured depths of foundations in relation to finish main floor datum.
  - 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
  - 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
  - 4. Field changes of dimension and detail.
  - 5. Details not on original Contract drawings.
- G. As-built drawings:
  - 1. Contractor must submit to the Project Landscape Architect and Owner with request for review the full set of marked-up As-built Record Drawings and Final As-built Record Drawings as described later in this Section.

- H. Submit documents to Owner and Project Landscape Architect with request for final Application for Payment.

1.06 OPERATION AND MAINTENANCE DATA

- A. Submit data bound in 8-1/2 x 11 inch (A4) text pages, three (3) D side ring binders with durable plastic covers, and complete document in 'PDF' format.
- B. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project, and subject matter of binder when multiple binders are required.
- C. Internally subdivide binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
- D. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- E. Contents: Prepare Table of Contents for each volume, with each product or system description identified, typed on white paper, in three parts as follows:
  - 1. Part 1: Directory, listing names, addresses, telephone numbers, websites and email addresses of Owner, Project Landscape Architect, Contractor, Subcontractors, and major equipment suppliers.
  - 2. Part 2: Operation and maintenance instructions arranged by system and subdivided by applicable specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Identify the following:
    - a. Significant design criteria.
    - b. List of equipment.
    - c. Parts list for each component.
    - d. Operating instructions.
    - e. Maintenance instructions for including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
  - 3. Part 3: Project documents and certificates, including the following:
    - a. Shop drawings and product data.
    - b. Certificates.
    - c. Photocopies of warranties and bonds.

1.07 PRODUCT WARRANTIES AND PRODUCT BONDS

- A. Obtain warranties and bonds executed in duplicate by responsible subcontractors, suppliers, and manufacturers, within ten days after completion of applicable item of work.
- B. Execute and assemble transferable warranty documents and bonds from subcontractors, suppliers, and manufacturers.
- C. Verify documents are in proper form, contain full information, and are notarized.
- D. Co-execute submittals when required.
- E. Include Table of Contents and assemble in three (3) D side ring binder with durable plastic cover, and with digital files in 'PDF' format.
- F. Submit prior to final Application for Payment.
- G. Time of Submittals:
  - 1. Make submittals within ten (10) days after Date of Substantial Completion, prior to final Application for Payment.

2. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within ten (10) days after acceptance, listing date of acceptance as beginning of warranty or bond period.

1.08 MAINTENANCE SERVICE

- A. Furnish service and maintenance of project site as required by Contract from date of Substantial Completion.
- B. Examine project site at frequency consistent with reliable operation. Clean and adjust as required.
- C. Include systematic examination and adjustment of project site. Repair or replace damaged project site areas as deemed necessary by the Owner.
- D. Do not assign or transfer maintenance service to agent or Subcontractor without prior written consent of Owner.

1.09 AS-BUILT RECORD DRAWINGS

- A. Contractor may not use record documents for construction purposes. Contractor must protect record documents from deterioration and loss in a secure location. Contractor must provide access to record documents for Owner and Project Landscape Architect's reference or review during normal working hours.
- B. Contractor must furnish as-built record drawings made from the Project Landscape Architect's Contract Drawings, or subsequent updates thereof, annotated as noted below with actual as-built conditions.
  1. As-built drawings must show all changes in the Work relative to the original Contract Documents; and must show additional information of value to Owner's records but not indicated in the original Contract Documents.
- C. As-built record documents must include marked-up copies of the Contract Drawings and Specifications, including newly prepared drawings if applicable or necessary to achieve the Owner's intended result, and shop drawings including all changed conditions issued through addenda and/or change orders.
  1. Contractor must include marked-up product data submittals, field records for variable and concealed conditions such as excavations and foundations, and miscellaneous record information on Work that was schematically recorded only schematically or not recorded at all.
- D. The Contractor shall bear all costs associated with obtaining the Project Landscape Architect's original Contract Documents, and subsequent updated plots thereof, drafting as-built information, reproduction, or other related work.
  1. Contractor shall ensure that all as-built changes are of good drafting quality, performed by a person skilled in drafting and knowledgeable of the conventions of the trades involved.
  2. Contractor may utilize Contractor's staff or seek outside assistance, including the Project Landscape Architect, for this drafting work provided the contractual requirements pertaining to quality, format, and content are met.

1.10 FINAL AS-BUILT RECORD DRAWINGS

- A. This Section requires that the original marked-up as-built drawings and a copy of the marked-up as-built drawings be submitted to the Project Landscape Architect (original) and Owner (copy) for review prior to requesting Substantial Completion inspections
  1. Following the Project Landscape Architect's review of the marked-up as-built drawings and supplemental drawings, and upon the Project Landscape Architect's acceptance that the marked-up information is accurate and complete, the Contractor shall proceed with preparation of a full set of professionally drafted record as-built drawings in electronic format made from Project Landscape Architect's Contract Drawing files.

2. Contractor shall submit final as-built record drawings to Project Landscape Architect in Owner's designated version of AutoCAD.
- B. All drawings shall bear the official Project name and number. Further, all drawings, including supplemental drawings, shall also bear a stamp to the effect of 'record As-built' along with the Contractor's certification that such is an accurate reflection of actual as-built conditions. Contractor shall sign and date each certification in a format that is acceptable to the Owner.
1. All drawings shall be the same size as the original Contract Documents.
  2. Once the final as-built record drawings are complete, the Contractor shall transmit them to the Owner within sixty (60) calendar days after Final Completion.
  3. Contractor shall ensure that all drawings issued as addenda, clarifications and/or change orders are incorporated into the as-built record drawing set and fully shown on the applicable Contract Drawing. If supplemental sheets are used, Contractor must follow the requirements outlined above for supplemental shop drawing sheets.

PART 2 - - Not Used

PART 3 - - Not Used

END OF SECTION 01 70 00

SECTION 01 71 23 - CONSTRUCTION SURVEYING

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Surveyor qualifications
- B. Submittals
- C. Survey reference points
- D. General survey requirements
- E. Surveys for measurement and payment (where applicable)
- F. Survey documentation of the Work

1.02 SURVEYOR QUALIFICATIONS

- A. Record survey drawings for review and approval shall be performed by an independent surveying firm with a Registered Land Surveyor (RLS) licensed and registered in the State of Georgia, retained by the Contractor, and acceptable to the Owner and Project Landscape Architect.
- B. Qualifications documentation shall be provided for the proposed RLS, as described in subsection 1.03.A of this Section.
- C. Day to day surveying for Contractor's control purposes may be performed by Contractor's own surveyors.

1.03 SUBMITTALS

- A. Submit qualifications documentation for proposed RLS. Information shall include: name, address, telephone number, and photocopy of registration of RLS.
- B. Submit record survey drawings (specified in subsection 3.03 of this Section), certified by the RLS, along with computer files on diskette in AutoCAD, latest format. Redline mark-ups of the Contract Drawings are not acceptable. A digitized tracing of a manually drawn record survey drawing, derived from non-digital surveying techniques, is also not acceptable.

1.04 SURVEY REFERENCE POINTS

- A. The Owner's surveyor has established benchmarks and horizontal control for the Work. Control datum for survey is that indicated on the Drawings.
- B. Contractor's RLS shall establish additional temporary benchmarks and horizontal control points as required.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 GENERAL SURVEY REQUIREMENTS

- A. Utilize recognized engineering survey practices appropriate for obtaining the information specified.

- B. Protect and preserve permanent reference points during construction.
- C. Promptly report to Owner and Project Landscape Architect the loss or destruction of any reference point or relocation required because of changes in grades or other reasons. Replace dislocated reference points based on original survey control. Make no changes without prior written notice to Owner and Project Landscape Architect.
- D. Establish elevations, lines and levels required for all items of the Work.

### 3.02 SURVEYS FOR MEASUREMENT AND PAYMENT

- A. If requested by the Owner, the Contractor shall perform surveys to determine quantities for unit price items, including control surveys to establish measurement reference lines. Notify Owner and Project Landscape Architect prior to starting surveys.
- B. If requested by the Owner, the Contractor shall submit calculations and certify the correctness of quantities for payment purposes. The Owner will confirm quantities prior to payment.

### 3.03 SURVEY DOCUMENTATION OF THE WORK

- A. Maintain a complete and accurate log of control and survey work as it progresses.
- B. Record survey drawings shall be prepared to fully document the Work, as specified in individual specification sections.
- C. Contractor's RLS shall prepare and certify the record survey drawings.

END OF SECTION 01 71 23



SECTION 02 40 00 - DEMOLITION AND STRUCTURE MOVING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes demolition and removal and/or abandonment of:
  - 1. Asphalt and concrete pavement
  - 2. Concrete curbs, gutters and walkways
  - 3. Other facilities and above-grade structures

1.02 REFERENCES

- A. Code of Federal Regulations Publications (CFR)
  - 1. United States Department of Labor, 29 CFR 1926, Safety and Health Regulations for Construction

1.03 SUBMITTALS

- A. Submit written certification of proper transport and final disposal of demolition materials to a permitted waste disposal facility.

1.04 QUALITY ASSURANCE

- A. Conform to applicable local, state, and federal regulations (including 29 CFR 1926, Part T – Demolition) related to operation of equipment and tools, protection of persons and property, and environmental controls.
- B. Notify affected utility companies before starting work and comply with their requirements.

1.05 PROJECT CONDITIONS

- A. Work with Owner and Project Landscape Architect to coordinate schedule for demolition, relocations, and removals.
- B. During demolition, relocations and removal, use all procedures necessary to assure that no portion of the structures, either that to be removed or to remain, become a hazard to persons by instability or other condition.
- C. Notify all local, state, and federal agencies having jurisdiction and complete all necessary forms required for demolition and disposal.
- D. Demolition and relocations shall be performed in a manner that will not disturb existing pavement, utilities, structures, and other facilities not indicated to be removed.
- E. Contractor shall take all necessary measures to protect all areas, site improvements utilities and other features that are not be demolished or removed. Any areas, site improvements, utilities or other features that are damaged during demolition shall be repaired at no additional cost to owner.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 PREPARATION FOR DEMOLITION

- A. By careful study of the Drawings and these Specifications, and coordination with the Owner and Project Landscape Architect, determine the location and extent of demolition to be performed.
- B. If not indicated to be removed, shut off and or capped, protect all existing public utility lines in the area of demolition in accordance with the requirements of the Owner and Project Landscape Architect, utility owner, or public agency have jurisdiction (as applicable).
- C. Barricade the work areas from pedestrian and vehicular traffic. Post "No Trespassing" and other necessary warning signs around the work areas during the entire duration of demolition work. Maintain barricades and signs during the construction period.

3.02 ASPHALT AND CONCRETE REMOVAL

- A. Existing asphalt and concrete shall be cut and removed as specified herein and as shown on the Drawings.
- B. Where portions of pavement and walkways are to be removed, cut asphalt and concrete in uniform line at the designated limits of removal. Use an adequately powered, water-cooled, mechanical saw with a diamond-edge blade or abrasive wheel, unless otherwise approved by the Owner and Project Landscape Architect.
- C. Break up and remove asphalt and concrete at the designated locations and to the required limits.
- D. At limits of asphalt and concrete remaining in place, maintain cuts in good order until adjacent construction is completed.

3.03 REMOVAL OF CURBS, GUTTERS AND WALKWAYS

- A. Cut and remove existing granite and/or concrete curbs, gutters and walkways where indicated on the Drawings.
- B. Saw cut granite and/or concrete at the limits of removal as approved by the Owner and Project Landscape Architect. Use an adequately powered, water-cooled, mechanical saw with a diamond-edge blade or abrasive wheel.
- C. Break up and remove granite and/or concrete using suitable tools and equipment. Maintain saw cuts in good order until new curb and gutter and new walkway construction work is completed (as applicable).

3.04 NOT USED

3.05 NOT USED

3.06 REMOVAL OF STRUCTURES

- A. Remove designated existing structures where indicated on the Drawings.
- B. During removal of structures, use all procedures necessary to assure that no portion of the structures become a hazard to persons by instability or other conditions.

- C. Structures may be moved intact, without disassembly. If intact removal is not feasible, disassembly may be allowed as determined by the contractor. Proper equipment and methods shall be used to prevent damage to the structures.

3.07 DISPOSAL OF REMOVED MATERIALS

- A. Demolition materials and debris classified as non-hazardous construction and debris (C&D) wastes shall be transported off-site and disposed at a permitted landfill in conformance with all applicable local, state and federal regulations.

3.08 SITE RESTORATION

- A. Backfill and grade excavated areas as indicated on the Drawings and specified in applicable specification sections.

END OF SECTION 02 40 00

SECTION 03 30 02 - SITE CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes cast-in-place concrete construction of: concrete walkways (including sidewalks, handicap ramps, steps, and other exterior pedestrian walkways); and miscellaneous concrete work.
- B. Related Sections:
  - 1. Section 31 22 00 - Grading

1.02 REFERENCES

- A. American Association of State Highway and Transportation Officials (AASHTO):
  - 1. AASHTO M154, Standard Specification for Air-Entraining Admixtures for Concrete
  - 2. AASHTO M194, Standard Specification for Chemical Admixtures for Concrete
- B. American Concrete Institute (ACI):
  - 1. ACI 301, Specifications for Structural Concrete
  - 2. ACI 318, Building Code Requirements for Structural Concrete
- C. ASTM International:
  - 1. ASTM A 185, Standard Specification for Steel Welded Wire Fabric, Plain, for Concrete Reinforcement
  - 2. ASTM A 615, Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
  - 3. ASTM C 31, Standard Practice for Making and Curing Concrete Test Specimens in the Field
  - 4. ASTM C 39, Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
  - 5. ASTM C 94, Standard Specification for Ready-Mixed Concrete
  - 6. ASTM C 143, Standard Test Method for Slump of Hydraulic Cement Concrete
  - 7. ASTM C 172, Standard Practice for Sampling Freshly Mixed Concrete
  - 8. ASTM C 231, Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
  - 9. ASTM C 260, Standard Specification for Air Entraining Admixtures for Concrete
  - 10. ASTM C 494, Standard Specification for Chemical Admixtures for Concrete
  - 11. ASTM D 994, Standard Specification for Preformed Expansion Joint Filler for Concrete (Bituminous Type)
  - 12. ASTM D 1751, Standard Specification for Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction (Non-extruding and Resilient Bituminous Types)
  - 13. ASTM D 1752, Standard Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction
  - 14. ASTM C 1116, Standard Specification for Fiber-Reinforced Concrete and Shotcrete.
- D. Georgia Department of Transportation (GDOT):
  - 1. "Standard Specifications, Construction of Transportation Systems", 2013 Edition (GDOT Standard Specifications)

1.03 SUBMITTALS

- A. Submit the following to the Owner and Project Landscape Architect, for review and approval no later than 14 days upon receipt of the city issued notice to process. Owner and Project Landscape Architect have 14 days to review submittal, upon which as approval or rejected will be provided. If a resubmitted is required, a new 14 days review period will start the date the resubmittal is received from contractor:
  - 1. Concrete mix designs
  - 2. Manufacturer's product data sheets for reinforcing steel, joint devices, concrete admixtures, joint fillers, joint sealants, curing aids, and other specified materials.

- B. Submit copy of truck ticket for every load of concrete delivered to the site.

#### 1.04 QUALITY ASSURANCE / QUALITY CONTROL

- A. Owner will retain the services of independent QC firm(s) to determine conformance of the materials and the constructed work with the specifications.
- B. Concrete walkway construction shall conform to the requirements of the City of Brookhaven Standards as shown on the Drawings and as specified in this Section.

#### 1.05 PROJECT CONDITIONS

- A. Concrete placement and finishing shall be performed only during periods of acceptable ambient temperatures in accordance with the applicable requirements of ACI 301.
- B. Concrete shall not be placed on subgrade that is frozen or excessively wet. Concrete shall not be placed during periods of precipitation without adequate protection that meets the approval of the Owner and Project Landscape Architect.
- C. Coordinate concrete construction with site grading work and other related construction.

### PART 2 - PRODUCTS

#### 2.01 SOURCE QUALITY CONTROL

- A. Proposed materials shall be approved by the Owner and Project Landscape Architect as specified prior to delivery and use in the construction.

#### 2.02 REINFORCEMENT

- A. Welded steel wire fabric shall conform to ASTM A185. Product shall be furnished in flat sheets. Style (wire size and spacing) shall be as indicated on the Drawings.
- B. Rebars shall conform to ASTM A615, Grade 60, unfinished. Size shall be as indicated on the Drawings.
- C. Concrete Reinforcing Fibers shall be high strength industrial-grade fibers specifically concrete and shall conform to ASTM C 1116.
- D. Furnish devices for elevating and supporting reinforcement in correct position.

#### 2.03 CONCRETE MATERIALS AND MIX DESIGNS

- A. Concrete materials and mix design shall conform to the applicable requirements of Section 500 of the GDOT Standard Specifications and as specified in the following paragraphs.
- B. Admixtures:
  - 1. The use of chemical admixtures shall be approved by the Project Landscape Architect.
  - 2. Air entrainment admixtures shall conform to AASHTO M154 or ASTM C260.
  - 3. Chemical admixtures (including any combination of water-reducing, retarding, and accelerating admixtures) shall conform to the requirements of AASHTO M194 or ASTM C494.
- C. Unless otherwise indicated on the Drawings or in other specification sections, concrete mix for structural foundations and slabs, concrete walkways, curbs and gutters, and miscellaneous work shall be Class "A" concrete conforming to the mix design requirements in Table 1 of Section 500 as summarized below:

1. Concrete mix shall be proportioned such that the 28-day compressive strength of moist cured laboratory samples achieve not less 3,500 pounds per square inch (psi) or as indicated on drawings.
2. Slump Range: 2 to 4 inches
3. Entrained Air Content: 2.5 to 6 percent (as determined using ASTM C231).
4. Coarse aggregate size: numbers 56, 57 or 67 in accordance with Section 800 of the GDOT Standard Specifications.
5. Maximum water/cement ratio (or water/cementitious material ratio if pozzolanic materials such as fly ash are added to Portland cement): 0.49

#### 2.04 JOINT DEVICES AND FILLER MATERIALS

- A. Expansion joint filler shall comply with ASTM D994, D1751, or D1752 (unless otherwise indicated on the Drawings).

#### 2.05 JOINT SEALANTS

- A. Joint sealant shall conform to the requirements of Subsection 833.2.06 of the GDOT Standard Specifications.

### PART 3 - EXECUTION

#### 3.01 FIELD QUALITY CONTROL

- A. No concrete for a specific pour shall be ordered for delivery to the Site until pertinent concrete mix design and specified materials are approved by the Project Landscape Architect.
- B. Sampling and testing during the placement of concrete shall conform to the requirements of ACI 301, and as specified below.
  1. Sampling Fresh Concrete: Comply with ASTM C172.
  2. Slump Testing (ASTM C143): One test for each concrete load at point of discharge; and one for each set of compressive strength test specimens.
  3. Concrete Temperature: Tested hourly when air temperature is 40 degrees F. and below, and when 80 degrees F. and above, and each time a set of compression test specimens is made.
  4. Concrete Test Specimens (ASTM C31): One set of four standard cylinders for each compressive strength test.
  5. Air Entrainment (ASTM C231): One test for each set of compressive strength test specimens.
  6. Compressive Strength Test (ASTM C39): One set for every 100 cubic yards or fraction thereof, of each concrete mixture placed in any one day, and at least one set per pour. One specimen of each set shall be tested at seven days, two specimens tested at 28 days, and one specimen retained in reserve for later testing if required.

#### 3.02 SUBGRADE PREPARATION

- A. Verify that subgrade has been excavated, graded and compacted (as applicable) to the required elevations and dimensions indicated on the Drawings and as specified in Section 31 22 00.
- B. Remove and dispose of debris and other unsuitable material from the subgrade surface.
- C. Subgrade shall be in a moist condition when concrete is placed.

#### 3.03 FORMWORK

- A. Construct formwork as necessary to provide the required dimensions for concrete construction indicated on the Drawings.

- B. Forms shall have sufficient strength to withstand the pressure resulting from placement and vibration of the concrete and shall have sufficient rigidity to maintain required shape.

### 3.04 INSTALLATION OF REINFORCEMENT

- A. Unless otherwise approved by the Project Landscape Architect, reinforcement shall be fabricated to the shapes and dimensions shown on the Drawings and installed where indicated.
- B. At the time of concrete placement all reinforcement shall be free from loose, flaky rust, scale (except tight mill scale), mud, oil, grease, or any other coating that might reduce the bond with the concrete.
- C. Accurately position, support, and secure reinforcement against displacement by concrete placement operations.
- D. Place reinforcement to obtain at least the minimum coverages for concrete protection as shown on the Drawings.
- E. Do not place reinforcing bars more than two inches beyond the last leg of continuous bar support. Do not use supports as bases for runways for concrete conveying equipment and similar construction loads.
- F. Tolerance for bar placement shall be plus or minus one bar diameter, but not exceeding one inch. Tolerance for cover over reinforcement shall be plus or minus one-half inch.
- G. Splices in reinforcement steel shall be in accordance with approved splicing procedures and the requirements of ACI 318 and only as approved by the Project Landscape Architect. Welding or butt-welding of re-bar will not be allowed.
- H. Install welded wire fabric in lengths as long as practical. Lap adjoining pieces at least one full mesh length, and lace splices with 16-gage wire.

### 3.05 INSTALLATION OF OTHER MATERIALS

- A. Items to be cast into the concrete shall be accurately placed and positioned securely.

### 3.06 CONCRETE PLACEMENT

- A. Concrete shall be placed at the locations and to the elevations and dimensions indicated on the Drawings.
- B. Mix, place and consolidate concrete in accordance with the applicable requirements of ACI 301, to suit the type of concrete and project conditions, and as specified herein.
- C. Truck mixers shall furnish a concrete batch that is homogeneous with respect to consistency, mix, and grading.
- D. Concrete that has been batched for over 1-1/2 hours shall not be placed.
- E. In order to ensure consistent slump at the point of placement, a small quantity of "trim water" may be held out at the batch plant. The amount of withheld water shall be indicated on the truck ticket, and the truck shall leave the batch plant with a full water tank.

- F. When concrete arrives at the point of delivery with a lower than specified slump and the concrete is unsuitable for placing at that slump as determined by the Project Landscape Architect or QC Firm, the slump may be adjusted to the required maximum by adding the withheld "trim water". Water may be added up to the amount allowed in the accepted mixture proportions as shown on the ticket, unless otherwise approved by the Project Landscape Architect.
- G. The addition of mixing water at the jobsite shall be in accordance with ASTM C94. The specified water/cement ratio shall not be exceeded.
- H. Do not use concrete which becomes non-plastic and unworkable, or does not meet the required quality control limits, or which has been contaminated by foreign materials.
- I. Deposit concrete as nearly in final position as practical to avoid rehandling. Do not permit concrete to drop freely a distance greater than three feet. Where longer drops are necessary, use chutes, tremies, or other conveyance to prevent separation.
- J. As soon as concrete is deposited, thoroughly agitate with mechanical vibrators and suitable hand tools to work mixture into corners of forms and around reinforcing and embedded items. Do not over-vibrate or use vibrators to transport concrete within forms.

### 3.07 FINISHING

- A. Finish concrete in accordance with the applicable requirements of ACI 301, to suit the type of concrete and project conditions, and as specified herein.
- B. Finishing of Concrete Slabs:
  - 1. Strike off (screed) concrete to required elevations and immediately start finishing and flattening operations. Ensure finishing operations are no more than necessary to remove irregularities and meet specified tolerances. Exposed concrete edges shall be worked with an edging tool having a radius of approximately 3/8 inch.
  - 2. At the Contractor's option, immediately after screeding, proceed with initial hand floating operations using appropriate tools to compact and consolidate unformed concrete slab surface. Complete floating work before any excess moisture or bleeding water is present on the surface.
  - 3. Allow concrete to stiffen before proceeding with finishing operations. No subsequent operation should be accomplished until the concrete will sustain foot pressure with only about 1/4-inch indentation.
  - 4. After evaporation of most of the bleed water has taken place, proceed with the second floating operation on slab surfaces using either hand trowels or power trowels as appropriate.
- C. On unexposed slab surfaces, trowel concrete surfaces using hand or power trowels as appropriate to produce a dense, smooth, hard surface.
- D. Tool chamfer all exposed concrete edges.
- E. Provide a medium broomed finish (or as indicated on plans) to all concrete surfaces that will receive foot or vehicular traffic. Finish exposed edges with steel edging tool.
- F. For unformed surfaces (including tops of walls) occurring adjacent to formed surfaces, strike off smooth and finish with texture matching the adjacent exposed formed surfaces.
- G. The exposed surfaces of concrete walls and columns shall receive a smooth rubbed finish. Produce finish on newly hardened concrete no later than the day following formwork removal. Wet the surface and rub it with a carborundum stone or an abrasive of equal quality until uniform color and texture are produced. The rubbing shall be continued sufficiently to remove all form marks and projections, producing a smooth dense surface without pits or irregularities. Allow concrete to cure as specified in subsection 3.09. Provide a final rubbed finish if required.



### 3.08 JOINTS

- A. Construct the required type of joint to the dimensions and at the locations shown on the Drawings.
- B. Install expansion joint filler and waterstops where shown on the Drawings and in accordance with manufacturers' recommendations.
- C. For concrete slabs on grade, contraction and expansion joints shall be provided as indicated on the Drawings, and as specified in the following paragraphs.
- D. For pedestrian walkways, expansion joints shall be formed at maximum spacing of not greater than 30 feet and at intersections with building walls and other structures. Expansion joint width shall be 1/2-inch minimum. Joint filler shall extend for the full depth of the joint. Install joint filler in accordance with the manufacturer's recommendations.
- E. Contraction joints for exposed concrete slabs and walkways shall be provided for crack control at the dimensions and spacing indicated on the Drawings and as specified below:
  - 1. Spacing of transverse contraction joints for sidewalks shall match sidewalk width.
  - 2. In all other locations, maximum spacing shall be 15 feet.
  - 3. Joints shall be formed using suitable hand tools (such as a pointed trowel), a 1/8-inch blade saw, or metal dividers. Depth of each contraction joint shall be one-third of the concrete thickness.

### 3.09 CURING AND PROTECTION

- A. Immediately following finishing operations, cure and protect concrete in conformance with the applicable requirements of ACI 301, and as specified in the following paragraphs.
- B. Protect fresh concrete from direct rays of sunlight, drying winds and rain.
- C. Maintain concrete temperature below 80 degrees F at time of placement, or furnish test data or provide other proof that admixtures and mix ingredients will not produce flash set plastic shrinkage, or cracking due to heat of hydration. Ingredients may be cooled before mixing to maintain fresh concrete temperatures at 80 degrees F or less.
- D. Curing shall be performed using wet coverings such as burlap, or moisture retaining coverings such as polyethylene film. Place coverings as soon as possible after finishing operations and after concrete has hardened sufficiently to prevent surface damage. Cover entire surface, including edges. Seal and secure laps and edges with six inches minimum overlap.
- E. Exposed surfaces of concrete shall be kept continuously moist for a minimum of [three] days.
- F. Use curing compound only where approved by the Project Landscape Architect. Cure formed surfaces with curing compound applied in accordance with manufacturer's directions as soon as forms are removed and finishing is completed.
- G. During the curing period, protect concrete from damaging mechanical disturbances including load stresses, heavy shock, excessive vibration, and from damage caused by rain or flowing water.

### 3.10 TOLERANCES

- A. Tolerances for formed and unformed surfaces shall conform to the applicable requirements of ACI 301 and as specified below:
  - 1. Variation from plumb in the lines and surfaces of walls: less than 1/2 inch in 10 feet.
  - 2. Variation of the linear structure lines from established position in plan and related position of walls: 1

inch

3. Variation in the thickness and height of walls: plus or minus 1/2 inch
4. Slab thickness tolerance: plus or minus 1/2 inch
5. Slab Surface: Maximum gap of 1/4 inch at any point between an unlevelled 10 foot straightedge and the slab, anywhere on the slab; measure within 72 hours after slab placement.

### 3.11 JOINT SEALING

- A. Install joint sealant (including accessories) at top of all expansion joints as soon as possible after proper curing of concrete in accordance with the sealant manufacturer's recommendations.

### 3.12 REMOVAL OF FORMWORK

- A. Do not remove forms or bracing until concrete has gained sufficient strength to carry its own weight and imposed loads (including wind load).
- B. Loosen forms carefully. Do not wedge pry bars, hammers, or tools against finished concrete surfaces scheduled for exposure to view.
- C. Store removed forms in a manner that will not damage surfaces to be in contact with fresh concrete. Do not use damaged forms.

### 3.13 CORRECTION OF DEFECTIVE WORK

- A. Concrete work that does not conform to the specified requirements, including strength, tolerances, and finishes, shall be corrected at the Contractor's expense as determined by the Owner and Project Landscape Architect.
- B. All finished concrete on exterior concrete walkways shall drain with no puddles or areas of standing water. Areas not draining shall be removed and reconstructed or otherwise repaired using procedures acceptable to the Owner and Project Landscape Architect.

END OF SECTION 03 30 02

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SECTION 10 14 53 - TRAFFIC SIGNAGE

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes furnishing and installation of:
  - 1. Handicap parking signs.
  - 2. Traffic signs (including directional, stop, and speed limit signs)

1.02 REFERENCES

- A. "Manual on Uniform Traffic Control Devices" (MUTCD), published by the Federal Highway Administration (FHWA), 2009 Revision 1&2 Dated 2012 edition.
- B. "Department of Transportation, State of Georgia Standard Specifications, Construction of Transportation Systems", 2013 Edition (GDOT Standard Specifications)

1.03 SUBMITTALS

- A. Submit the following for review prior to commencement of the work of this Section:
  - 1. Shop Drawings for all signs to be furnished. Identify MUTCD classification number and include information on color, wording, lettering size and style, overall sign size, fabrication details and installation details for each type of sign.

1.04 QUALITY ASSURANCE

- A. Manufacturer shall have manufacturing and quality control facilities capable of producing and assuring the quality of traffic signs specified.
- B. Signs shall conform to the requirements of City of Brookhaven, Georgia DOT and all other authorities having jurisdiction.

1.05 DELIVERY, STORAGE AND HANDLING

- A. During loading, transporting, and unloading, exercise care to prevent damage to products. Conform to manufacturers' recommendations.
- B. All materials shall be inspected upon delivery to the Site. Damaged or defective materials shall be rejected and shall be replaced with new materials at no additional cost to the Owner.

PART 2 - PRODUCTS

2.01 SIGN PANELS AND APPURTENANCES

- A. Comply with the applicable requirements of Section 910 of the GDOT Standard Specifications for material specifications and sign fabrication, including sign blanks and panels, reflectorizing materials, and paint.
- B. Sign posts shall conform to Section 911 of the GDOT Standard Specifications unless otherwise approved by the Owner and Project Landscape Architect.

2.02 SIGN STYLE AND SIZE

- A. Fabricate and furnish signs as indicated on the Drawings.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Erect signs at the required locations as indicated on the Drawings.
- B. Conform to the applicable requirements of Subsection 636.3.05 of the GDOT Standard Specifications for installation of posts and mounting of signs, unless otherwise approved by the Owner and Project Landscape Architect.

3.02 PROTECTION AND MAINTENANCE

- A. Protect surfaces and finishes from abrasion and other damage during handling and installation.
- B. Replace damaged or faulty signs as approved by the Owner and Project Landscape Architect.

END OF SECTION 10 14 53

SECTION 31 10 00 - SITE CLEARING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes: tree protection; clearing and grubbing of vegetation; stripping and on-site stockpiling of topsoil; and disposal of vegetation.

1.02 REFERENCES

- A. ASTM International:
  - 1. ASTM A 116.11, Standard Specification for Metallic-Coated, Steel Woven Wire Fence Fabric

1.03 QUALITY ASSURANCE

- A. Conform to all applicable local codes for disposal of cleared vegetation.

1.04 PROJECT CONDITIONS

- A. Site clearing shall be performed in a manner that does not disturb existing pavement, structures, utilities, other facilities and trees not indicated to be removed.
- B. The contractor shall repair at no additional costs to the owner any areas of existing pavement, structures, utilities, other facilities and trees not indicated to be removed which become damaged during site cleaning and any other phase during construction.

PART 2 - PRODUCTS

2.01 ALL REFERENCES TO VENDORS AND 'APPROVED MANUFACTURERS' ARE INCLUDED FOR DESCRIPTION OF QUALITY AND CONTENT OF THE DESIGNATED EQUIPMENT/MATERIALS AS BASIS OF DESIGN. EQUIVALENT ITEMS MAY BE ACCEPTED IF THEY MEET ALL STANDARDS OF QUALITY AND PURPOSE FOR THE INTENDED USE, AS DETERMINED BY CITY OF BROOKHAVEN.

2.02 TREE PROTECTION BARRIER AND/OR FENCING

- A. Tree protection fencing shall be orange high-visibility safety fencing, PSF-Series Plastic Safety Fence manufactured by DGI Industries. Furnish metal posts and woven wire fence backing as indicated on the Drawings and as specified below.
- B. Metal posts shall be standard steel fence T-posts, 5 feet minimum length. Furnish fence post caps.
- C. Woven wire (hog wire) shall conform to ASTM A116.11, with Class 3 coating.
- D. "Tree Save Area" signs shall be attached to tree protection fencing as indicated on plans and details every 10' on center. Signs shall be made of corrugated plastic, printed with exterior grade graphics and include metal grommets at four corners for attaching to fence with nylon cable ties. Signs that are damaged or removed shall be replaced within 24 hours.
- E. Tree protection barrier material as specified on the Drawings and approved by the City of Brookhaven shall be used in lieu of tree protection fencing. Locations for barrier material to be reviewed and field approved by Project Landscape Architect.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Implement temporary erosion and sediment control measures prior to clearing of vegetation in accordance with the Erosion, Sedimentation and Pollution Control (ES&PC).

3.02 TREE PROTECTION

- A. Prior to commencement of clearing activities, install tree protection fencing at the locations and alignments indicated on the Drawings or as otherwise determined by the Owner and Project Landscape Architect. The installed locations of temporary barrier and/or fencing shall be approved by the Owner and Project Landscape Architect before clearing and other construction operations will be allowed to proceed. Maintain the barrier and/or fencing as required.
- B. No trucks or other equipment shall be driven or parked within the drip line of any tree, except for designated trees to be saved whose limbs overspread construction areas and as approved by the Owner and Project Landscape Architect.

3.03 CLEARING AND GRUBBING

- A. Cut and remove existing trees, brush, shrubs and other vegetation outside the limits of tree protection fencing indicated on the Drawings.
- B. Remove roots to a minimum depth of one foot below existing grade or one foot below the proposed subgrade elevation for construction, whichever is lower.

3.04 TOPSOIL STRIPPING, STOCKPILING, AND ON-SITE PLACEMENT

- A. Excavate and remove topsoil outside the limits of tree protection fencing to an approximate depth of 4 - 6 inches below existing grade or as otherwise determined by the Owner and Project Landscape Architect.
- B. All grass, root fiber, decayed vegetation matter and other organic or deleterious material shall be removed such that a sound surface which provides a stable base for construction is exposed.
- C. Stockpile the removed topsoil on-site where approved by the Owner and Project Landscape Architect for later placement on designated surfaces to be seeded or otherwise landscaped. Protect stockpile and adjacent surfaces from erosion as stated in the Drawings.
- D. At completion of the Work, grade all excess stockpiled topsoil on-site as approved by the Owner and Project Landscape Architect.

3.05 DISPOSAL OF CLEARED VEGETATION

- A. All cleared vegetation shall either be chipped or removed from the Site for disposal as specified in the following paragraphs.
- B. Vegetation may be chipped and placed on-site under trees as approved in advance by the Owner and Project Landscape Architect. Chipping and placement shall include reducing woody materials to chips by the use of an appropriate chipping machine and placement at approved locations by broadcasting or other acceptable methods. No piles of chips over six inches thick shall be left on-site. Rather, the chips shall be disbursed between existing vegetation outside of any stream buffers or other protected areas.
- C. Burning of cleared vegetation will not be permitted.

- D. All cleared vegetation that is not chipped and disposed on-site shall be transported off-site and disposed in accordance with all applicable local, state and federal regulations.

END OF SECTION 31 10 00



SECTION 31 22 00 - GRADING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes: excavation, subgrade stabilization (if required), fill placement and grading required for site grading.
- B. Related Sections:
  - 1. Section 01 71 23 – Construction Surveying
  - 2. Section 02 40 00 –Demolition and Structure Moving
  - 3. Section 31 10 00 – Site Clearing

1.02 REFERENCES

- A. ASTM International:
  - 1. ASTM D 448, Standard Classification for Sizes of Aggregate for Road and Bridge Construction
  - 2. ASTM D 1556, Standard Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method
  - 3. ASTM D 1557, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort
  - 4. ASTM D 2216, Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
  - 5. ASTM D 2487, Standard Practice for Classification of Soils for Project Landscape Architecting Purposes (Unified Soil Classification System)
  - 6. ASTM D 2974, Standard Test Methods for Moisture, Ash, and Organic Matter of Peat and Other Organic Soils
  - 7. ASTM D 4318, Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
  - 8. ASTM D 4643, Standard Test Method for Determination of Water (Moisture) Content of Soil by Microwave Oven Heating
  - 9. ASTM D 4959, Standard Test Method for Determination of Water (Moisture) Content of Soil by Direct Heating
  - 10. ASTM D 6938, Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
- B. Georgia Department of Transportation (GDOT):
  - 1. "Standard Specifications, Construction of Transportation Systems", 2013 Edition (GDOT Standard Specifications)

1.03 SUBMITTALS

- A. Submit the following for review prior to commencement of the work of this Section:
  - 1. Proposed source(s) of borrow material.
- B. Submit the following during work progress:
  - 1. Written reports of all specified tests showing conformance of the materials and constructed work with the Specifications. Submit test results within five days after samples are obtained.
- C. Submit the following at completion of the work:
  - 1. Record survey drawings of completed grading as specified in this Section.

1.04 QUALITY ASSURANCE / QUALITY CONTROL

- A. Owner will retain the services of Quality Control firm(s) to determine conformance of the materials and constructed work with the Specifications.
- B. Record surveys shall be performed by the Contractor's Registered Land Surveyor as specified in this Section.
- C. Excavation, grading and preparation of subgrades for pavement and structures shall conform to the requirements of applicable City of Brookhaven and DeKalb County standards.
- D. Work within right-of-ways for construction of entrances shall conform to the requirements of City of Brookhaven as indicated on the Drawings.

1.05 PROJECT CONDITIONS

- A. Site Information
  - 1. All excavation is unclassified, unless otherwise approved by the Owner. Test borings and other exploratory operations may be made by the Contractor, and such activities shall be at no cost to the Owner. All excavations made during the exploratory operations shall be backfilled to match existing or proposed grade contours.
- B. Acceptance: Claims for additional compensation for additional work due to alleged differences between actual existing site conditions and the site conditions indicated in the Contract Documents or in the geotechnical report will not be recognized.
- C. Work shall be performed in a manner that does not disturb existing utilities, structures, trees, or other site features not indicated to be removed. Any damage to existing site features shall be repaired by the contractor and returned to existing conditions at no expense to the owner.

PART 2 - PRODUCTS

2.01 SOURCE QUALITY CONTROL

- A. Proposed materials and source of supply shall be approved by the Owner and Project Landscape Architect as specified, prior to delivery.
- B. Testing of soils to be used for soil fill (for determination of acceptability of soil and for quality control during compaction) shall conform to the following at a minimum rate of one test every 100 cubic yards and for each visible change in material:
  - 1. Soil Classification (ASTM D 2487)
  - 2. Laboratory Moisture Content (ASTM D 2216)
  - 3. Moisture-Density Curve, modified proctor (ASTM D 1557)
  - 4. Atterberg Limits (ASTM D 4318)
  - 5. Organic Content (ASTM D 2974)

2.02 STABILIZER AGGREGATE (if required)

- A. Stabilizer Aggregate shall consist of coarse aggregate with gradation conforming to size number 2 aggregate (2 ½ inch to 1 ½ inch nominal size) as defined in ASTM D 448.

### 2.03 SOIL FILL

- A. Soil Fill shall be obtained from on-site grading operations and from approved off-site borrow source(s) and shall consist of: gravels with fines (GM, GC); sands with fines (SP-SM, SP-SC, SM, SC); silts (ML); inorganic clays (CL); or blends of these materials as defined by the Unified Soil Classification System (USCS). The material shall also conform to the following material specifications:
1. Plasticity Index shall be less than 10 and liquid limit shall not be greater than 50.
  2. Material shall have less than three percent by weight fibrous, organic matter as determined by ASTM D 2974.
  3. Maximum particle size shall be two inches.
  4. Substantially free of roots, trash and other material which may be compressible or which cannot be compacted properly.

### 2.04 TOPSOIL

- A. Topsoil to be placed on graded areas to be seeded or landscaped shall be obtained from on-site stockpiles of stripped topsoil. If sufficient topsoil is not present, existing soils shall be amended, as necessary, to support specified vegetation as approved by the Owner and Project Landscape Architect.

## PART 3 - EXECUTION

### 3.01 BORROW SOURCE

- A. Obtain borrow material from on-site and from approved off-site borrow source(s). For soil obtained from off-site borrow source(s), the Contractor shall be responsible for obtaining any permits or approvals from authorities having jurisdiction, unless the borrow source is being operated under an existing permit. Furnish off-site borrow as part of the Base Bid.
- B. Unless otherwise provided in the Contract, the Contractor is responsible for obtaining the right to procure material, pay all required fees, and develop the sources including rights-of-way for hauling from the borrow source owner(s).

### 3.02 FIELD QUALITY CONTROL

- A. The following tests shall be performed during placement of Soil Fill:
1. In-Place Density (using ASTM D 6938 or ASTM D 1556): Minimum of one test for each lift per 5,000 square feet (or every 200 linear feet along roadway alignment).
  2. Moisture Content (using ASTM D 4643, ASTM D 4959, or ASTM D 6938): Minimum of one test for each lift per 5,000 square feet (or every 200 linear feet along roadway alignment).
  3. In-place density and moisture content testing performed using nuclear instruments shall be checked by comparison to test results using laboratory methods as specified in the following subsection 3.02.B.
- B. Calibration of Test Results:
1. If selected for compaction/density testing, the calibration of each nuclear densitometer shall be checked weekly by comparison to the density measured on the same material by the sand-cone test method (ASTM D 1556). If there is more than two pounds per cubic foot difference in density, sand-cone results will be accepted over nuclear density results, as determined by the QC Firm and approved by the Owner and Project Landscape Architect.
  2. At least weekly, moisture content test results shall be checked by comparison to the moisture content measured on the same material using laboratory testing in accordance with ASTM D 2216 or D 4643. If there is more than five percentage points difference in moisture content, laboratory test results will be accepted over field testing, as determined by the QC Firm and approved by the Owner and Project Landscape Architect.
  3. If the nuclear densitometer cannot be calibrated to match the sand-cone results, and laboratory moisture content tests, the nuclear densitometer shall not be used for measurement of the in-place

density and moisture content.

C. Record Surveying

1. Surveying shall be performed to record completed grading. At a minimum, survey surface elevations shall be surveyed on a 50-foot grid pattern. Establish survey points at top and bottom of all slopes, drainage ditches, and at other required locations to define constructed grades.
2. Survey data and record drawings shall be prepared by a Registered Land Surveyor as specified in Section 01 71 23.
3. Submit six copies of the final signed and sealed survey and an electronic file in AutoCAD.

3.03 PREPARATION

- A. The Contractor's surveyor shall lay out the limits and elevations for site grading. Where new grades tie into existing grades, the existing grades shall be verified by the Contractor. If existing conditions vary from the Drawings, notify the Owner and Project Landscape Architect before proceeding with site grading. Adjustments will be made if necessary as determined by the Owner and Project Landscape Architect.
- B. Protect designated trees, clear and grub vegetation, and strip topsoil as specified in Section 31 10 00.
- C. Remove existing asphalt and concrete pavement, walkways, structures and other designated facilities as indicated on the Drawings and specified in Section 02 40 00.

3.04 EXCAVATION AND GRADING

- A. After stripping of topsoil, excavate and grade existing subgrade soils for pavement, structures, and other facilities to the elevations and limits shown on the Drawings.
- B. If rock is encountered during site grading, remove rock using methods approved by the Owner and Project Landscape Architect. Rock removal shall be part of the Unit Pricing.
- C. Exposed subgrade soils within limits of roadway pavement and parking lot construction shall be proofrolled and unsuitable subgrade soils shall be stabilized as specified in subsection 3.05.
- D. Place and compact fill as specified in subsection 3.06.
- E. Shape and compact fill with uniform levels or slopes between points where elevations are shown on the Drawings, or between such points and existing grades. The graded areas shall be shaped to be free from irregular surface changes and within the tolerance specified for the location.
- F. Unless otherwise indicated on the Drawings, grade areas adjacent to structures to achieve drainage away from the structures and to prevent ponding.

3.05 PROOFROLLING AND STABILIZATION OF ROADWAY PAVEMENT SUBGRADES

- A. Proofroll the exposed subgrade to detect unstable conditions. Proofrolling shall be performed after a suitable period of dry weather to avoid degrading the subgrade. Perform proofrolling with a 20- to 30- ton loaded dump truck or other pneumatic-tired vehicle of similar size and weight. Make several passes over the subgrade with the proofrolling equipment.
- B. Soft or highly plastic soils which pump, rut or wave during proofrolling, as determined by the QC Firm, Owner and Project Landscape Architect, shall be classified as unsuitable subgrade soils.

- C. Any unsuitable subgrade soils observed during the proofrolling operations shall be stabilized in accordance with the following paragraphs 1, 2 or 3, or as otherwise approved by the Owner and Project Landscape Architect:
  - 1. Excavate unsuitable subgrade soils to a depth sufficient to produce a stable bearing surface for fill placement. Excavation shall continue until suitable subgrade soils are exposed as determined by the Owner's QC Firm. The excavated unsuitable subgrade soils shall be replaced with Soil Fill, placed and compacted as specified in subsection 3.06.
  - 2. Stabilize the subgrade by placement of Stabilizer Aggregate, or as directed by the Owner's QC Firm, to a minimum depth of six inches. Compact the material to a minimum of 95 percent of the material's maximum dry density as determined by ASTM D 1557. Grade to the required subgrade elevations for placement of Soil Fill.
  - 3. Stabilize unsuitable subgrade soils with stabilization geotextile or geogrid. Prior to placement of stabilization geotextile or geogrid, the subgrade shall be relatively uniform, with depressions and humps greater than two inches graded out.
- D. Proofrolling and stabilization of subgrade shall be included as part of the Base Bid.
- E. For areas with suitable subgrade soils, scarify and recompact the existing and exposed subgrade soils within the limits of roadway, parking lot, and trail to a depth of six inches prior to fill placement. Compaction requirements shall be as specified in subsection 3.06.

### 3.06 PLACEMENT OF SOIL FILL

- A. Place Soil Fill in horizontal layers not exceeding eight inches loose thickness. Place to the elevations and horizontal limits required for roadway and trail subgrade as indicated on the Drawings.
- B. All Soil Fill placed within 12 inches of the finished subgrade under roadways, parking lots, and trails shall be compacted to a minimum of 95 percent of the material's maximum dry density as determined by ASTM D 1557.
- C. Soil Fill placed outside the limits described in the above paragraph B shall be compacted to a minimum of 90 percent of the material's maximum dry density as determined by ASTM D 1557.
- D. If necessary, soil shall be moisturized or dried to the correct moisture content prior to compaction. Soils within certain areas of the Site may be above optimum moisture for compaction. The Contractor shall scarify and dry the fill soils (as part of the Base Bid) as necessary to achieve proper compaction as determined by the QC Firm. Careful planning of fill operations will be required to allow drying time for individual fill lifts.
- E. Maintain the moisture content of Soil Fill to within plus or minus three percentage points of the soil's optimum moisture content, or as otherwise determined by the QC Firm.
- F. Uniformly grade Soil Fill to the required finish elevations. Shape the graded surface to be free from irregular surface changes. Tolerances for grading shall be as specified in subsection 3.07.
- G. Based on the results of surveying of the finished surface, areas that are not constructed to the required elevations shown on the Drawings, within specified tolerance, shall be adjusted to the proper elevations.
- H. Excess material that remains when finish grades are achieved shall be placed on-site where approved by the Owner and Project Landscape Architect or hauled off site for legal disposal.

### 3.07 GRADING TOLERANCE

- A. Finished surface within limits of pavement and structures shall not vary more than one inch above or below the required elevations.

- B. Finished surface of graded areas outside limits described in the above paragraph 3.12.A (including walkway subgrade and fill slopes) shall be graded to the elevations required within a tolerance of plus or minus two inches.

3.08 PLACEMENT OF TOPSOIL

- A. Topsoil shall not be placed until all specified quality control testing has been performed for placement of Soil Fill.
- B. Place topsoil over graded soil surface in all areas to be grassed to a depth of approximately four inches unless otherwise indicated on the Drawings and approved by the Owner and Project Landscape Architect.
- C. Topsoil will not require compaction other than that provided by the equipment used to place the material. Shape the final surface of topsoil to be free from irregular surface changes.

3.09 SURFACE STABILIZATION

- A. Completed graded surfaces outside the limits of pavement, walkways and structures shall be stabilized with grass, landscaping, or other improvements as indicated on the Drawings and specified in applicable specification sections.

3.10 MAINTENANCE AND PROTECTION

- A. Protect graded surfaces from erosion and keep free from accumulation of debris.
- B. Damage to finished surfaces during the course of construction, such as rutting under the loads imposed by earth-moving or hauling equipment, or damage due to erosion from rainfall events, shall be fully repaired prior to placement of any overlying materials.
- C. Where completed graded areas are disturbed by subsequent construction operations or erosion, regrade to the required elevations and compact to the specified density prior to further construction. Work shall include repair and reestablishment of grades in settled, eroded, and rutted areas without any additional cost to the Project.

END OF SECTION 31 22 00

PART 1 GENERAL

1.1 SCOPE

- A. Nature trail shall be laid out and constructed so as to be woven through the woods, between the trees and over the root systems. This is a careful, interactive process between the Contractor and Project Landscape Architect.
- B. Nature trail shall be constructed in a manner that does not disrupt the tree root systems or require unnecessary removal of trees or cutting of roots.
- C. Nature trail shall be constructed at the locations and to the dimensions, lines and cross section indicated on the Drawings or as directed by the Project Landscape Architect and in conformity with the provisions and requirements set out in these Specifications.
- D. Nature trail shall include all the necessary excavation, unless otherwise indicated, subgrade and subbase preparation, backfilling, final clearing-up, and completing all incidentals thereto, as indicated on the Drawings or as directed by the Project Landscape Architect.
- E. Contractor shall visit the site to verify the extent of clearing, grading, staking and tree root zone protection necessary for the construction of trails.

1.2 PROTECTION

- A. Contractor shall not encroach upon any areas outside the proposed nature trail surface and shoulder. Equipment shall not twist, turn, or backup into woodland spaces outside the area of the graded trail unless approved by the Project Landscape Architect.
- B. Contractor shall not park vehicles, store, or stage any materials or equipment under the overhanging branches or the drip line of trees to be saved. Drip line is defined as the area of ground perpendicularly below the outer reaches of the trees branches.
- C. Contractor shall review all construction adjustment considerations with the Project Landscape Architect prior to implementation.
- D. Contractor shall keep detailed field notes of all adjustments and changes.
- E. Trees and roots shall be protected from damage both above grade and below ground by using the development process outlined in Part 3 - Execution.
- F. Do not permit construction traffic on finished nature trail surfaces.
- G. Provide barricades and warning devices as required to protect the nature trail and the general public.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Staking materials shall be placed in field according to the plans and shall consist of the following:
1. 1" x 2" x 3' tall stakes for center line stakeout
  2. 1" x 2" x 18" short stakes for corners
  3. Plastic flagging tape:
    - a. Red - Indicates trees to remove
    - b. Yellow - Indicates trees to save
    - c. White - Indicates centerline
    - d. Pink - control points
  4. Wire Flags (Pink)
  5. 2" x 2" x 12" Hub stakes
  6. Mallet - Short handle for driving stakes
- B. Comply with applicable requirements of Section 32 12 16, Asphalt Concrete Pavement.

PART 3 EXECUTION

3.1 EQUIPMENT

- A. No track type equipment shall be used in the construction of this work. Rubber tire vehicles shall be used exclusively and shall be limited to small back hoes, bobcats, pickup trucks, dump trucks, and narrow machines of the type used for golf course cart paths. Equipment shall be light weight, small scale vehicles capable of negotiating 6-foot to 8-foot wide pathways.

3.2 LAYOUT

- A. Contractor shall stake the nature trail survey coordinate control points from the survey with hub stakes and tall stakes and shall flag the tall stakes with pink tape.
- B. Contractor shall stake the centerline of the proposed trail layout as per the plans with wire/flag stakes to indicate routes.
- C. Contractor, Project Landscape Architect and Owner's shall walk the stakeout to make adjustments to the layout and flag trees to be removed with red tape.
- D. The Contractor's Surveyor shall make field notes and transfer field adjustments to the construction documents.
- E. Contractor shall prepare a location stakeout of the trail layout based on the revised layout plans. Stakeout shall include horizontal and vertical (i.e. spot elevations) information.
- F. Contractor, Project Landscape Architect and Owner's shall review the stakeout again to make minor horizontal and vertical adjustments.



- G. The Contractor's Surveyor shall transfer revised data to the record documents for Contractor's reference.

### 3.3 CLEARING AND GRUBBING

- A. Contractor shall remove trees and underbrush from the nature trail corridor. This shall be accomplished with a rubber tire tractor and hand equipment. Small trees shall be cut off flush with the ground. Large trees shall be cut down by hand saws or uprooted and removed by knocking the tree down so that it falls within the nature trail corridor. All stumps shall be ground down 18-inches – 24-inches below finished subgrade. Trees shall be cut into pieces and removed by small truck. No dragging of cut trees, tree trunks or limbs shall be permitted. No root rakes shall be permitted.
- D. Limbs, brush, and treetops shall be removed or chipped and blown out into the adjacent woods.
- E. Contractor shall hand rake surface leaf mulch and humus away from trail bed. Contractor shall scatter this material in designated areas that will not be disturbed by construction. Soil mixed with ground up stump litter shall be removed from the trail corridor and not be left under the trail surface.

### 3.4 TRAIL AND DRAINAGE EXCAVATION

- A. Trail and drainage excavation, as indicated on plans and typical sections, and field verified and supported by Contractor, Owner and Project Landscape Architect.

### 3.5 FILL CONSTRUCTION

- A. Fill construction, as indicated on plans and typical sections, and field verified and supported by Contractor, Owner and Project Landscape Architect.

### 3.6 EMBANKMENT CONSTRUCTION

- A. Embankment construction, as indicated on plans and typical sections, and field verified and supported by Contractor, Owner and Project Landscape Architect.

### 3.7 BACKFILLING

- A. Contractor shall fine grade the outside edges of the trail to transition down to base grade by spreading native soil and covering with leaf and stockpiled wood chip mulch.

3.8 PROTECTION

- A. Maintenance: The Contractor shall maintain the nature trail until the acceptance of the Project. Maintenance shall include replacement, and reshaping as necessary of the material and the repair of damaged or unsatisfactory surfaces, to the satisfaction of the Project Landscape Architect.

END OF SECTION 32 14 13

SECTION 32 17 23 - PAVEMENT MARKINGS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes application of traffic striping and other pavement markings with paint or thremoplastic materials.

1.02 REFERENCES

- A. Georgia Department of Transportation (GDOT):
  1. "Standard Specifications, Construction of Transportation Systems", 2013 Edition (GDOT Standard Specifications)

1.03 SUBMITTALS

- A. Submit the following to the Owner and Project Landscape Architect, for review and approval no later than 14 days upon receipt of the city issued notice to proceed. Owner and Project Landscape Architect have 14 days to review submittal, upon which an approval or rejection will be provided. If a resubmittal is required, a new 14 days review period will start the date the resubmittal is received from contractor:
  1. Manufacturers' product data sheets and certifications showing conformance with the Specifications.
  2. Material Safety Data Sheets (MSDS) for pavement marking materials.

1.04 DELIVERY, STORAGE AND HANDLING

- A. Traffic paint shall be stored in the manufacturer's original, unopened, sealed containers or in other approved sturdy containers capable of being tightly sealed. Containers shall be clearly and legibly labeled.
- B. All pavement marking materials shall be stored in accordance with the manufacturer's recommendations.
- C. Comply with all applicable health and safety regulations for storage, handling and use of paint materials.

1.05 QUALITY ASSURANCE / QUALITY CONTROL

- A. Pavement marking materials, types, colors, configuration, and dimensions shall conform to the applicable requirements of authorities having jurisdiction, and as specified in this Section.

1.06 PROJECT CONDITIONS

- A. Temperature, moisture, and other atmospheric and surface conditions shall conform to the requirements of Section 652 or 653 of the GDOT Standard Specifications (as applicable) for application of pavement markings.

PART 2 - PRODUCTS

2.01 PAVEMENT MARKING MATERIALS

- A. Materials used for permanent pavement marking shall be white and/or yellow or blue traffic striping as specified below:
  1. ReflectORIZED Traffic Line Paint: Conform to the applicable requirements of Subsection 652.2 of the GDOT Standard Specifications.
  2. Thermoplastic ReflectORIZED Pavement Marking Compound: Conform to the applicable requirements of Subsection 653.2 of the GDOT Standard Specifications.

- B. Furnish the type and color of pavement markings and reflectivity as indicated on the Drawings and in accordance with applicable regulations.

### PART 3 - EXECUTION

#### 3.01 PREPARATION

- A. The pavement surface shall be prepared for application of pavement markings in accordance with Subsection 652.3 or 653.3 of the GDOT Standard Specifications (as applicable). This includes the requirement that the pavement surface shall be dry and free from dirt, dust, oil, curing compound, and other contaminants which may interfere with the marking properly bonding to the pavement surface.
- B. Allow new pavement surface to properly cure prior to applying permanent pavement markings.
- C. Provide temporary barricades to prevent traffic from entering the pavement marking areas.

#### 3.02 APPLICATION OF PAVEMENT MARKINGS

- A. Comply with the applicable requirements of Section 652.3 or 653.3 of the GDOT Standard Specifications (as applicable) and as specified in the following paragraphs.
- B. Provide temporary pavement markings prior to application of permanent markings as required. Temporary markings shall consist of the centerline of face-to-face parking stalls and the two way traffic centerline in the roadways. The temporary roadway centerline may be a broken line with maximum spacing of 30 feet and minimum length of one foot.
- C. Apply pavement markings at the locations and to the configurations shown on the Drawings.
- D. Pavement markings shall include traffic lane delineations, centerlines, parking stalls, traffic islands, traffic arrows, stop lines, handicap space markings, crosswalks, and all other markings indicated on the Drawings.

#### 3.03 PROTECTION

- A. Provide traffic cones, barricades, and other devices needed to protect the pavement markings until the materials have sufficiently cured or set.

#### 3.04 ACCEPTANCE

- A. Pavement markings will be verified by Owner and Project Landscape Architect and are subject to inspection and acceptance by authorities having jurisdiction.

#### 3.05 CORRECTION OF DEFECTIVE WORK

- A. Defective pavement markings shall be repaired in accordance with the referenced GDOT Standard Specifications and as determined by the Owner and Project Landscape Architect.

END OF SECTION 32 17 23

SECTION 32 92 19 - SEEDING AND MULCHING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes establishing temporary and permanent grass as part of Erosion, Sedimentation and Pollution Control (ES&PC) measures on areas disturbed by construction as indicated on the Drawings.
- B. Related Sections:
  - 1. Section 31 22 00– Grading
- C. SPECIAL NOTE RELATED TO SEEDING: SEE SPECIAL PROVISIONS FOR LANGUAGE RELATED TO RELEASE OF PAYMENT AND OWNER ACCEPTANCE RELATED TO ESTABLISHMENT OF TURF IN AREAS REQUIRING SEEDING.

1.02 REFERENCES

- A. Georgia Department of Transportation (GDOT):
  - 1. "Standard Specifications, Construction of Transportation Systems", 2013 Edition (GDOT Standard Specifications)

1.03 SUBMITTALS

- A. Submit the following for approval at time of shipment of materials to the Site:
  - 1. Certification of grass seed from seed vendor for each grass seed mixture stating the botanical and common name and percentage by weight of each species and variety, and percentage of purity, germination and weed seed.
  - 2. Bag tags, receipts, truck weight tickets, and other information necessary to confirm application rates and types for all seed.

1.04 QUALITY ASSURANCE / QUALITY CONTROL

- A. Contractor shall retain the services of a testing firm to perform analysis of soil samples as specified in this Section. The testing firm shall be an independent laboratory approved by the Owner and Project Landscape Architect and recognized by the State of Georgia Department of Agriculture, with the experience and capability to conduct the testing specified.
- B. Seeding shall be accomplished according to standard local practice and as indicated on the Drawings.
- C. SPECIAL NOTE RELATED TO SEEDING: SEE SPECIAL PROVISIONS FOR LANGUAGE RELATED TO RELEASE OF PAYMENT AND OWNER ACCEPTANCE RELATED TO ESTABLISHMENT OF TURF IN AREAS REQUIRING SEEDING.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver packaged materials in containers showing weight, analysis and name of manufacturer/supplier.
- B. Protect materials from deterioration during delivery and while stored at the Site.

1.06 PROJECT CONDITIONS

- A. Perform seedbed preparation and seeding as soon as possible after completion of grading in each area.

- B. Seeding shall be performed only during the appropriate growing season for the particular seed mix as recommended by the local agricultural extension office and approved by the Owner and Project Landscape Architect.

1.07 MAINTENANCE SERVICE

- A. Maintenance service for establishment of grassed areas shall begin immediately after seeding, and continue until final acceptance as specified in 3.06.

PART 2 - PRODUCTS

2.01 TOPSOIL

- A. Topsoil to be placed on graded areas that require seeding shall be obtained from on-site stockpiles of stripped topsoil. The soil shall be substantially free of litter, stiff clay, stones larger than one inch in diameter, objectionable weeds, litter, brush, matted or large roots, toxic substances, or any other material which may be harmful to plant growth or hinder planting operations.

2.02 FERTILIZER

- A. Fertilizer shall be a standard commercial fertilizer, in dry or liquid form, complying with Section 891 of the GDOT Standard Specifications.
- B. The grade of fertilizer shall be as indicated on the Drawings or as otherwise determined based on soil test results and as approved by the Project Landscape Architect,.

2.03 LIME

- A. Lime shall be ground dolomitic limestone designated for agricultural use, meeting the requirements of the Georgia Department of Agriculture and Subsection 882.2.01 of the GDOT Standard Specifications.

2.04 SEED

- A. Seed shall be fresh, clean, new-crop seed mixed in the proportions specified for species and variety, meeting the requirements of Subsection 892.01 of the GDOT Standard Specifications, except that sampling and testing of the seed will not be required.
- B. Seed mixtures for temporary and permanent grassing shall be as indicated on the Drawings.
- C. The variety and blends of seed shall not be added, deleted or substituted unless otherwise approved by the Owner and Project Landscape Architect. Proposed changes to the seed mixtures shall be submitted to the Project Landscape Architect for approval prior to use.
- D. Seed that has become wet, moldy or otherwise damaged will not be acceptable.

2.05 MULCH

- A. Mulch shall be as indicated on the Drawings.

PART 3 - EXECUTION

3.01 SOIL SAMPLING

- A. An independent testing firm shall obtain at least one sample (minimum 10-ounce sample) per acre of soil to be seeded, analyze the samples to determine amounts of nitrogen, phosphorus, potassium, and pH value in the soil, and provide recommendations on fertilizer and lime to be used.

3.02 PREPARATION

- A. Maintain temporary erosion and sediment control measures as specified in Section 01 57 13 until a satisfactory stand of grass has been established.
- B. Fill placement and grading shall be completed as specified in Section 31 22 00.
- C. Place topsoil in areas to be grassed or landscaped as indicated on the Drawings. Shape the final surface of topsoil to be free from irregular surface changes.
- D. Surface shall be scarified to an approximate depth of three inches in areas to be seeded. Remove stones and sticks, roots, rubbish and other extraneous matter.

3.03 SEED APPLICATION TIMES

- A. Timing for temporary seeding shall be as indicated on the Drawings.
- B. Seeding for permanent vegetation shall be performed during the first optimum planting season following completion of work in an area. Planting dates are indicated on the Drawings.

3.04 TEMPORARY VEGETATION

- A. Seed mixture for temporary vegetation shall be uniformly applied at the rate indicated on the Drawings.

3.05 APPLICATION OF SOIL AMENDMENTS

- A. Uniformly apply fertilizer and lime for permanent vegetation at the rates indicated on the Drawings or as otherwise determined based on soil test results and as approved by the Project Landscape Architect.

3.06 APPLICATION OF PERMANENT SEEDING AND MULCH

- A. Uniformly apply seed for permanent vegetation in conformance with the application rates and procedures indicated on the Drawings, unless otherwise approved by the Owner and Project Landscape Architect.
- B. Seed may be sown with a gravity, cyclone or hydraulic seeder, or as otherwise approved by the Owner and Project Landscape Architect.

3.07 PROTECTION OF SEEDED AREAS

- A. Immediately after seeding, protect seeded areas with mulch as indicated on the Drawings and as specified in the following paragraphs.

3.08 ESTABLISHMENT OF GRASS

- A. Begin maintenance of seeded areas immediately after seed placement. Water, repair washed or eroded areas, and otherwise protect and maintain the seeded areas for a minimum of one month after seed placement has been completed and until date of Substantial Completion.
- B. Final acceptance of seeded areas will not be made by the Owner and Project Landscape Architect until a satisfactory stand of grass is obtained in all areas seeded. A satisfactory stand of grass is defined as a cover of living plants, after true leaves are formed, of the seed species applied, in which gaps larger than 6" x 6" do not occur. Bare spots shall be scattered, and the total bare areas shall not comprise more than ten percent of a 10 square foot area.
- C. During the establishment period, re-seed bare and eroded areas as determined necessary by the Owner and Project Landscape Architect. Repair of washed or eroded areas and re-seeding of bare areas shall be performed at no additional cost to the Project.
- D. Water required to promote a satisfactory growth shall be furnished and applied by the Contractor until final acceptance of seeded areas, and will not be measured for payment. Apply water as required to supplement rainfall to provide approximately one inch of water per week over the seeded areas.
- E. When initial maintenance period has not elapsed, or if lawn is not fully established, before the grass goes dormant, maintenance and or replanting must be done during the next planting season until established. Final payment will be delayed until final acceptance by the City.

3.09 MAINTENANCE SERVICE

- A. Initial Maintenance Service: Provide full maintenance by skilled employees of landscape installer. Maintain as required in this Section. Begin maintenance immediately after each area is planted and continue until acceptable grass stand is established, but for not less than a period of 60 days from date of planting completion.

END OF SECTION 32 92 19